

China

Hebei Clean District Heating Project

Qiaodong District Central Heating and Housing Supporting Facility

Construction Project, Zhangjiakou City

Abbreviated Resettlement Action Plan

Zhangjiakou Dongyuan Heating Co., Ltd. (ZDHCO)

September 2015

Abbreviations

AAOV	-	Average Annual Output Value
AH	-	Affected Household
AP	-	Affected Person
HD	-	House Demolition
LA	-	Land Acquisition
M&E	-	Monitoring and Evaluation
MLS	-	Minimum Living Security
RAP	-	Resettlement Action Plan
ZDHCO	-	Zhangjiakou Dongyuan Heating Co., Ltd.

Units

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

Contents

1. Overview	1
1.1 Overview of Construction purpose and main content.....	1
1.2 Overview of implementation agencies	1
1.3 Overview of the heating source	1
1.4 Land occupation of pressure isolated heat exchange station.....	2
1.5 Overview of distribution and directions of heating pipelines.....	3
1.6 Land occupation of newly built heating stations	6
1.7 Preparation process and methods of the RAP.....	6
2. Background of the Subproject.....	8
2.1 Socioeconomic profile of the subproject area	8
2.2 Background and significance of the Subproject	8
2.3 Components.....	8
2.4 Investment.....	8
2.5 Key technical and economic indicators.....	9
3. Construction schedule.....	9
4. Impacts of the Subproject.....	10
4.1 The affected area and types	10
4.2 Permanent land occupation	10
4.3 Temporary land occupation.....	10
4.4 other social impacts.....	11
4.5 Measures to mitigate impacts	11
5. Resettlement Policy Framework.....	12
5.1 Fundamental Policies	12
5.2 Related Laws and Regulations	12
5.2.1 Key Provisions from the World Bank Operational Policy on Involuntary Resettlement (OP 4.12).....	12
5.2.2 Key Provisions from the Land Administration Law of the People's Republic of China	13
5.2.3 Key Provisions from the Regulations on the Administration of Urban Roads.....	14
5.2.4 Key Provisions from the Administrative Measures for the Collection of Urban Road Occupation and Excavation Fees	14
5.2.5 The Notice of the Hebei Provincial Construction Commission on Adjusting Rates of Urban Road Excavation and Restoration (HPCC [1997] No.175)	15
5.3 Entitlement of affected Persons.....	15
6. Compensation for road occupation and excavation	16
7. Impacts of closedown of scattered coal-fired boiler rooms	16
7.1 Overview of affected workers	16
7.2 Impact analysis.....	17
7.3 Affected workers' attitudes to and needs for the Subproject.....	17
7.4 Resettlement of affected workers	22
7.4.1 reemployment plan	22
7.4.2 Entitlement of the boiler workers.....	22
8. Skills training costs and other costs	22
9. Public participation and grievance redress	23
9.1 Public participation	23

ARAP of the World Bank-financed Qiaodong District Central Heating and Indemnificatory Housing Supporting Facility Construction Project, Zhangjiakou City

9.1.1 Public Participation during RAP Compiling Phase.....	23
9.1.2 Public Participation during the Implementation of the RAP	23
9.2 Grievance Mechanism and Channels	23
10. Organizational setupThe organization	24
10.1 Organization setup and function	24
10.2 Staffing	24
11. M&E	25
11.1 Internal Monitoring.....	25
11.2 External M&E	25
Appendix 1: Due Diligence Report of Zhangjiakou Power Plant	26
1. Overview of Zhangjiakou Power Plant.....	26
2. Land occupied for Zhangjiakou Power Plant.....	26
Appendix 2: Due Diligence Report of ZDHCO.....	26
1. Overview of ZDHCO.....	26
2 . Land occupied for ZDHCO	26
Appendix 3: Due Diligence Report of the Heat Exchange Station.....	29
Appendix 4: Relevant Documents	29

1. Overview

1.1 Overview of Construction purpose and main content

The Qiaodong District Central Heating and Indemnificatory Housing Supporting Facility Construction Project, Zhangjiakou City (hereinafter, the “Subproject”) is one of the 4 subprojects of the Hebei Clean Heating Project. ZDHCO is the implementing agency of the Subproject. The Subproject aims to replace existing scattered small coal-fired boilers with the combined heat and power source of Zhangjiakou Power Plant (already in operation), and close coal-fired boiler rooms gradually within two years. The heating area of the Subproject is 8.489 million m².

The Subproject consists of the following components: 1) construction of a heat exchange station with a heating area of 3.88 million m²; 2) construction of primordial and primary heating pipelines of 20.5km; 3) construction and reconstruction of 75 local heating stations and building heating stations; 4) reconstruction of two 70MW gas-fired boilers the existing site of ZDHCO; and 5) installation of heat meters for 1,340 residential buildings in existing communities.

In addition, a 40km long gas pipeline from Yisen Natural Gas Company to ZDHCO will be constructed by Yisen Natural Gas Company.

1.2 Overview of implementation agencies

ZDHCO, founded in January 2009, is a solely state-funded enterprise specializing in central urban heating, construction, repair, maintenance, correction protection, heat insulation, consulting, etc. ZDHCO serves a heating area of 34 km² and a population of 249,600.

Yisen Natural Gas Company, founded in Xuanhua County in 2014, has a workforce of 20, and specializes in the preliminary investigation and gas supply planning of the Shaanxi-Beijing Line 4 (Zhangjiakou) Project. The company plans to complete the design of the gas supply networks in Xuanhua and Zhangjiakou City, and commence construction in 2016, and put them into operation in 2017 and 2018. By then, the maximum gas supply to Zhangjiakou City will be 500 million m³, and the annual gas supply to ZDHCO will be over 55 million m³, with a guaranteed maximum hourly gas consumption of over 1.66 x m³/h.

1.3 Overview of the heating source

The heating source of the Subproject, Zhangjiakou Power Plant, is wholly owned by Datang International Power Generation Co., Ltd., founded in 1988, located west of Zhujiashuang Village, Hezixi Xiang, Xuanhua District. Zhangjiakou Power Plant involves neither land acquisition (LA) nor house demolition (HD). See Appendix 1 for the Due Diligence Report of Zhangjiakou Power Plant.

In the Subproject, two 70MW gas-fired boilers of ZDHCO will be reconstructed to meet the heating demand of the subproject area in 2017. See Appendix 2 for the Due Diligence Report of ZDHCO.

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Figure 1 Location Map of Zhangjiakou Power Plant, and Xuanhua and Qiaodong Districts

1.4 Land occupation of pressure isolated heat exchange station

The heat exchange station constructed under the Subproject is located northwest of the junction of Yangjiafen Road and Jianshe East Street in Qiaodong District, and occupies 2.84 mu of state-owned land. It involves neither LA nor HD. See Appendix 3 for the due diligence report of this plot.

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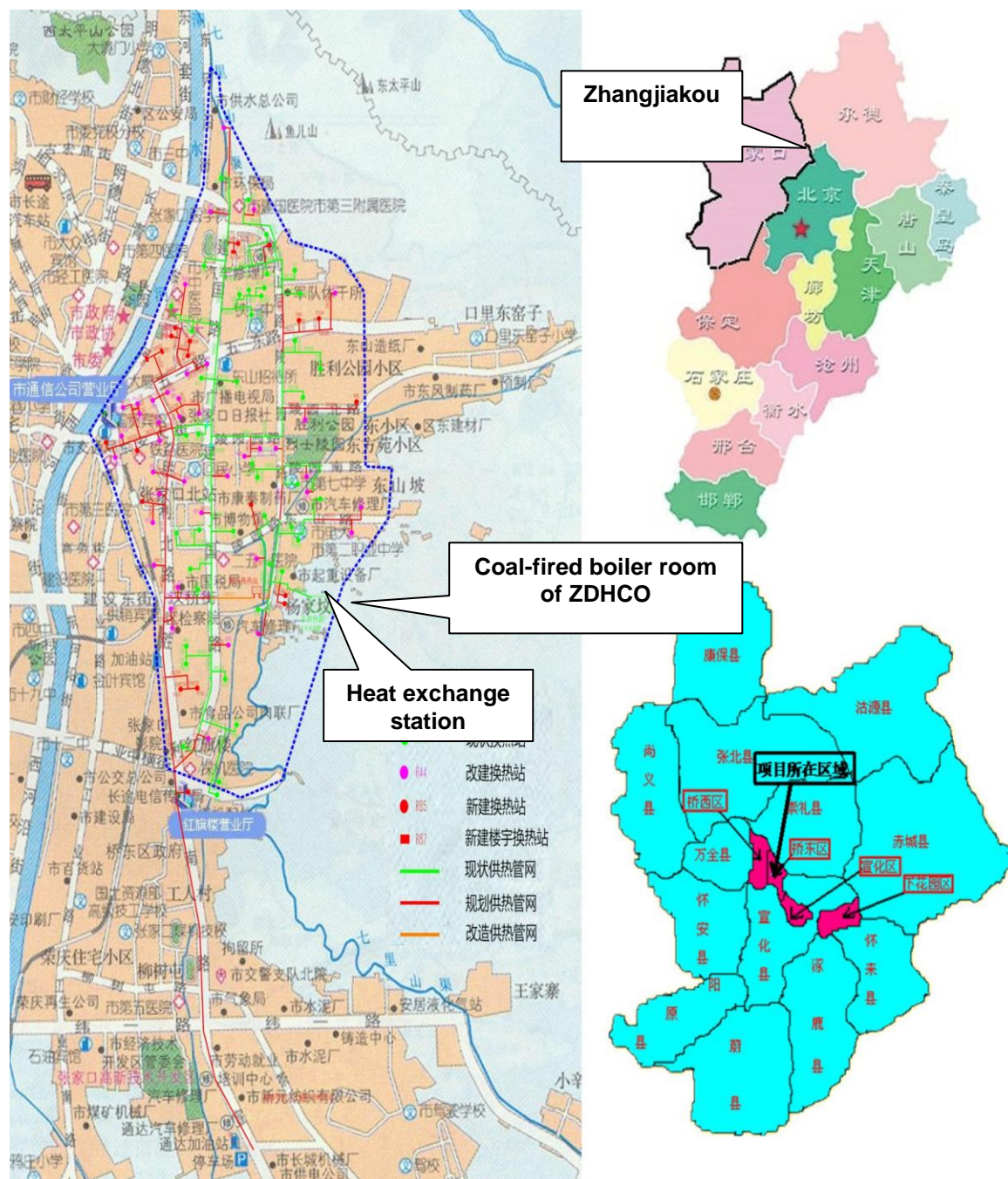


Figure 2 Location Map of the Subproject Area, Heating Pipelines, Zhangjiakou and Qiaodong District

1.5 Overview of distribution and directions of heating pipelines

The new DN1200 primordial pipeline is connected to the hot water pipeline of the power plant on Wei'er Road, runs northward along Shengli Central Road to Jianshe East Street, and is then divided into two branches, including a DN700 primordial pipeline running northward along Shengli North Road to Wuyi Street, and a DN800 primordial pipeline running eastward along Jianshe East Street to the heat exchange station. See Figure 3.

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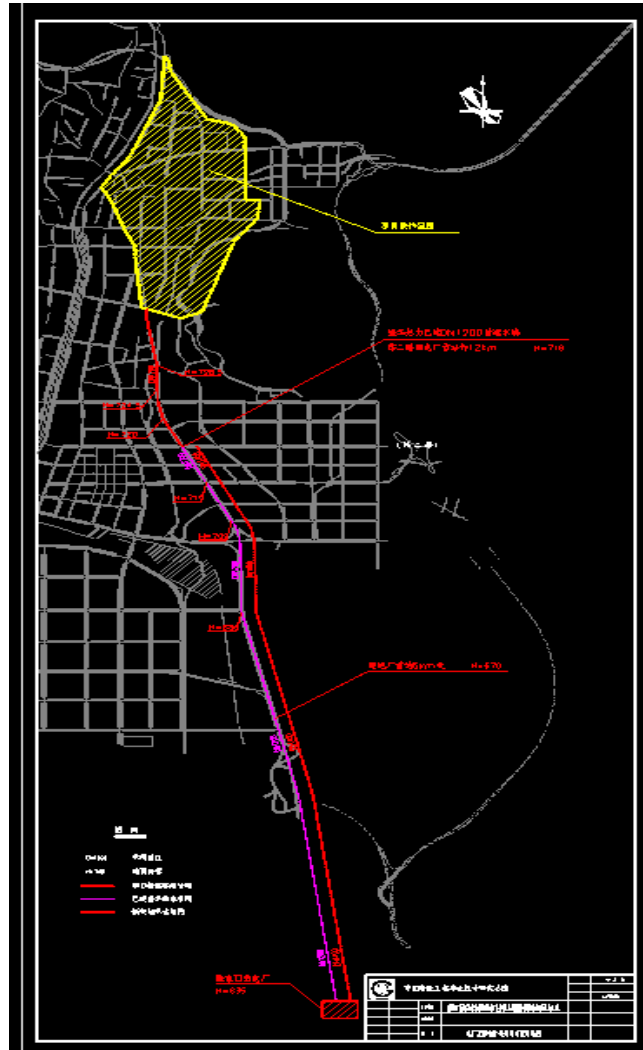




Figure 3 Sketch Map of Pipelines and Heating Area

The natural gas pipeline constructed under the Subproject runs northward from the natural gas joint out of Yanghe Town through the Yanghe River, Chahar Street and Shengli South Road, into Shengli Central and North Roads along Shengli South Road, and to the heating plant via Hanqiao Street and Jianshe East Street. The natural gas pipeline is about 40km long, and its route is shown in Figure 4.

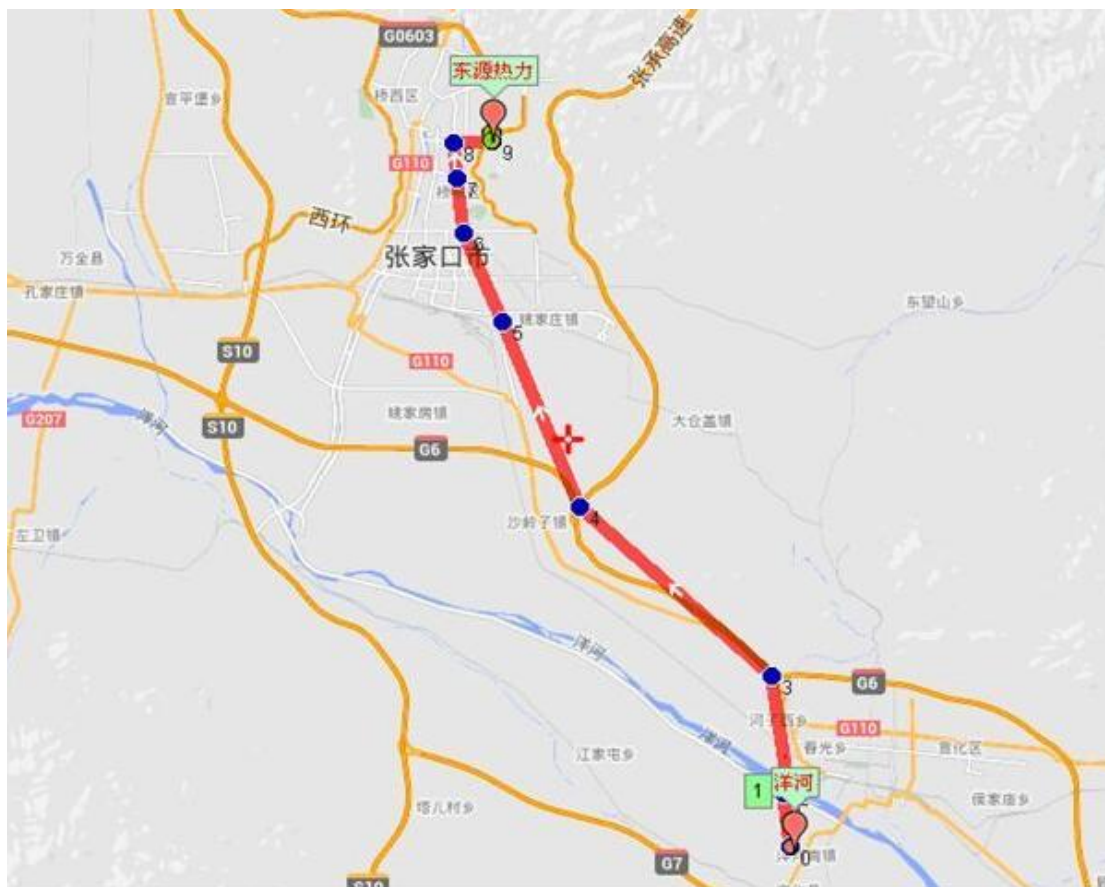


Figure 4 Route Map of Natural Gas Pipeline

The primordial and primary pipelines, and natural gas pipeline constructed under the Subproject will be constructed on urban trunk roads, involving neither the acquisition of rural collective land nor HD.

1.6 Land occupation of newly built heating stations

Among the 58 local heating stations constructed under the Subproject, 41 are reconstructed from small boiler rooms and 17 newly constructed, involving neither LA nor HD. The Notice of the Zhangjiakou Municipal Utility Administration Bureau on Policies for Urban Central Heating states that land must be reserved for heating station construction during the planning of new projects, existing boiler rooms will be converted into heating stations, and boiler room land and aboveground buildings will be offered to ZDHCO for management and use without compensation. See Appendix 4: Relevant Documents (1) for the relevant document of the Zhangjiakou Municipal Government.

1.7 Preparation process and methods of the RAP

The Shanxi Academy of Social Sciences was appointed by the owner Zhangjiakou Dongyuan Heating Co., Ltd. (ZDHCO) to organize a task force, and assist the owner in preparing this RAP.

During October 8-11, and December 23-25, 2014, a team of 10 organized by the task force and the PMO conducted a comprehensive socioeconomic survey in the subproject, conducted extensive public participation, and collected comments and

**ARAP of the World Bank-financed Qiaodong District Central Heating and
Indemnificatory Housing Supporting Facility Construction Project, Zhangjiakou City**

suggestions from stakeholders.

The task force conducted learned local socioeconomic profile, and conducted adequate consultation with all stakeholders on the necessity and social impacts of the Subproject, the reemployment of boiler workers, network access and courtyard pipeline improvement charges, residents' ability and willingness to pay by means of literature study, FGD, door-to-door interview, participatory observation and questionnaire survey in order to incorporate their attitudes, needs and suggestions into the subproject design. On this basis, ZDHCO prepared the RAP of the Subproject.

2. Background of the Subproject

2.1 Socioeconomic profile of the subproject area

Zhangjiakou City is located in northwestern Hebei Province, bordered by Chengde City on the east, Beijing City on the southwest, Baoding City on the south, and Shanxi Province on the west and south, being an important logistics center, traffic hub and industrial base in northern China. The city has a land area of 36,800 km², and governs 13 counties, 4 districts (Qiaodong, Qiaoxi, Xuanhua and Xiahuayuan), two administrative zones, a high-tech zone and an industry cluster zone. In 2013, the city's resident population was 4.4133 million, GDP 131.7 billion yuan, fiscal revenue 22.476 billion yuan, urban residents' per capita disposable income 20,525 yuan, and farmers' per capita net income 6,384 yuan.

Qiaodong District is located in the east part of the urban area of Zhangjiakou City, with a land area of 34.35 km². The district governs 5 sub-districts, one town and 9 administrative villages. In 2013, the district's population was 218,000, including a nonagricultural population of 201,000, GDP 14.68 billion yuan, fiscal revenue 1.123 billion yuan, urban residents' per capita disposable income 21,204 yuan, and farmers' per capita net income 10,130 yuan. See Figure 2.

2.2 Background and significance of the Subproject

At the end of 2013, the heated building area within the heating area of ZDHCO was 6.072 million m², including 3.485 million m² covered by central heating and 2.587 million m² covered by small boiler heating. This not only wastes energy but also pollutes the environment. With the heating improvement of old communities and the development of the city, the planned heating area of Qiaodong District will reach 8.489 million m². Accelerating the popularization of combined heat and power, and the reconstruction of coal-fired boilers to realize central heating and improve air quality is an urgent task for municipal infrastructure construction in Qiaodong District. In addition, since Zhangjiakou City will host the 2022 Winter Olympics together with Beijing, it is also imperative to further improve air quality, in which replacing scattered coal-fired boilers with central heating is an important measure. The Subproject will generate significant social, environmental and economic benefits.

2.3 Components

The Subproject consists of the following components:

- 1) Construction of a heat exchange station with a heating area of 3.88 million m², with a building area of 2,016 m² and a floor area of 2.84 mu (including the dispatching center);
- 2) Construction of primordial and primary heating pipelines of 20.5km, with diameters of DN1200-DN100;
- 3) Construction and reconstruction of 75 local heating stations and building heating stations, including 17 new heating stations, 41 reconstructed heating stations and 17 new building heating stations;
- 4) Reconstruction of two 70MW gas-fired boilers, and expansion a gas pressure regulating station with a building area of about 200 m² on the existing site of ZDHCO.

In addition, a 40km long gas pipeline will be constructed by Yisen Natural Gas Company.

2.4 Investment

The Subproject has a gross investment of 451.433 million yuan, including a Bank loan of USD33.5 million, equivalent to 206.025 million yuan, accounting for 45.64% of gross investment, domestic commercial bank loans of 125 million yuan, accounting for 27.69% of gross investment, a central finance appropriation for the central heating of indemnificatory housing of 29 million yuan,

ARAP of the World Bank-financed Qiaodong District Central Heating and Indemnificatory Housing Supporting Facility Construction Project, Zhangjiakou City

accounting for 6.42% of gross investment ,and counterpart funds of 91.41 million yuan, accounting for 20.05% of gross investment. The Subproject will be constructed from 2015 to 2017.

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 ²	848.9
2	Overall heating capacity	W/m ²	57.8
3	Heating load	MW	492.38
4	Design capacity of the heat exchange station	MW	224.6
5	Floor area of the heat exchange station	mu	2.84
6	Building area of the heat exchange station	m ²	2016
7	Annual heating capacity	0,000 GJ/a	486.5
8	Pipelines	Km	20.48
9	New heating stations	/	17
10	New building heating stations	/	17
11	Reconstructed heating stations	/	41
12	Heating parameters		
	Operating pressure of primordial pipelines	MPa	1.5
	Water supply/return temperature of primordial pipelines	°C	130/70
	Operating pressure of primary pipelines	MPa	1.25
	Water supply/return temperature of primary pipelines	°C	120/60
	Operating pressure of secondary pipelines	MPa	0.8
	Water supply/return temperature of secondary pipelines	°C	75/50
13	Staffing	/	52
14	Gross investment	0,000 yuan	45143.26

3. Construction schedule

The Subproject will break ground in August 2015, be partly put into operation in 2015, and reach design capacity in 2017. The schedule is as follows:

- Feasibility study and approval: November 2014 – March 2015
- Preliminary design and approval: March 2015 – April 2015
- Construction drawing design: April 2015 – July 2015
- Bid invitation: July 2015 – August 2015
- Construction: August 2015 – September 2017
- Trial operation: October 2015 – October 2017

See Table 3-1.

Table 3-1 Construction schedule

No.	Item	Unit	2015	2016	2017
1	Pipeline construction				
	Primordial and primary pipelines	km	6.57	11.25	2.67
2	Heating station construction				
	Local heating stations	/	14	39	5
	Building heating stations	/	5	12	
3	Heat exchange station	/		1	
4	Boiler room reconstruction	/			1
5	Small boiler room closedown	/	19	74	6
6	Metering improvement	/	170	1030	140
7	Central heating area	0,000 m ²	445.1	793.2	848.9
8	Covered area of old buildings	0,000 m ²	33.1	198.6	26.9
9	Covered area of new buildings	0,000 m ²	63.5	149.5	28.8

4. Impacts of the Subproject

4.1 The affected area and types

The Subproject is located in Qiaodong and Qiaoxi Districts, Zhangjiakou City.

The main types of impacts of the Subproject are permanent land occupation during the construction of the heat exchange stations, and temporary land occupation during the construction of the heating pipelines.

The Subproject involves neither the acquisition of rural collective land nor HD, and all permanently and temporarily occupied land is state-owned land, including 21.12 mu of permanently occupied land and 382.81 mu of temporarily occupied land.

During construction, nearby residents, entities and stores will be adversely affected. With the shutdown of boiler rooms, boiler workers will be faced with reemployment. The social impact not arising from LA is increasing the financial burden of poor households due to the collection of secondary pipeline and house connection improvement charges.

4.2 Permanent land occupation

The heat exchange station constructed under the Subproject will occupy 2.84 mu of state-owned land, and the constructed or reconstructed 58 local heating stations and 17 building heating stations will occupy 17.5 mu of land (based on 200m² each for local heating stations and 3m² each for building heating stations). The two reconstructed 70MW gas-fired boilers and the expanded gas pressure regulating station will occupy 0.8 mu of land. 21,12 mu of land will be occupied in total. See Table 4-1.

Table 4-1 Summary of permanently occupied land

Item	Qty.	Permanently occupied land (mu)		
		State-owned	Collective	Total
Heat exchange station	1	2.84	0	2.84
Heating stations	58 (local)	17.40	0	17.4
	17 (building)	0.08	0	0.08
Gas-fired boilers	2	0.5	0	0.5
Gas pressure regulating station	1	0.3	0	0.3
Total	77	21.12	0	21.12

4.3 Temporary land occupation

382.81 mu of land will be occupied temporarily during pipeline construction, mostly on urban roads, 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)
Heating pipelines						
1	Shengli Central-North Road	DN1200	3666	12	Trunk road	65.99
2	Shengli North Road	DN1000	1294	10	Trunk road	19.41
3	Jianshe East Street	DN800	1030	8	Trunk road	12.36
4	Shengli North Road, Jianguo Road, Linyuan Road	DN700	2367	8	Trunk road	28.40
5	Shengli North Road	DN600	577	8	Trunk road	6.92
6	Shengli North Road, Wuyi Street	DN500	230	8	Trunk road	2.76
7	Wuyi Street	DN450	16	8	Trunk road	0.19
8	Dong'an Street, Heishiba Road,	DN400	1379	8	Trunk road	16.55

ARAP of the World Bank-financed Qiaodong District Central Heating and Indemnificatory Housing Supporting Facility Construction Project, Zhangjiakou City

Linyuan Road						
9	Dong'an Street, Shengjian Street	DN350	744	8	Trunk road	8.93
10	Dong'an Street, Heishiba Road	DN300	531	3	Trunk road	2.39
11	Malu Street, Heishiba Road	DN250	2188	3	Trunk road	9.85
12	Linyuan North Street	DN200	2770	3	Community road	12.46
13	Community road	DN150	1639	3	Access road	7.38
14	Dongxing Street, community road	DN125	1482	3	Access road	6.67
15	Dongxing Street, community road	DN100	568	3	Access road	2.56
Subtotal			20481			202.81
Gas pipeline						
16	Chahar Street, Shengli South, Central and North Roads	DN200	40000	3	Trunk roads	18.0
Total			60481			382.81

4.4 other social impacts

(1) Construction on roads and in residential areas will affect road traffic, residents' daily life, and nearby stores' business.

(2) With the closedown of small boiler rooms, boiler workers will have to be reemployed. In the Subproject, 99 small coal-fired boiler rooms will be closed down. In heating year 2014-2015, the 99 small boiler rooms had 259 boiler workers in total, all being seasonal workers and mostly aged around 40 to 50 years old, who will be faced with reemployment.

(3) Secondary pipeline and metering improvement expenses might increase the financial burden of poor households. Along with replacing small boiler rooms within CHP central heating, some communities might require secondary heat network improvement. According to Documents ZMPO (General Office of the Zhangjiakou Municipal Government) [2010] No.72 and ZMPO [2011] No.132, the rate of secondary pipeline and metering improvement expenses for existing residential buildings to be connected to central heating is based on actual expenses, with 70 yuan/m² as max limit. The remaining will be paid by heating company.

4.5 Measures to mitigate impacts

(1) Try to slow the negative impact of construction. 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, defined access road spaces, taking safety measures, indicating construction sites visually, preventing flying dust by sprinkling and coverage, storing construction materials orderly and removing waste materials timely to reduce land occupation, and restoring the occupied land to the original condition timely after the completion of construction.

(2) Properly solving the problem of reemployment for affected boiler workers. Implement the reemployment and training program for affected boiler workers strictly. Currently, ZDHCO and small boiler room operators have developed a reemployment and training program for affected boiler workers through consultation. ZDHCO, small boiler room operators and the government should implement this program strictly, so that workers' livelihoods are not affected by the Subproject.

(3) In conducting secondary pipeline and metering improvement, ZDHCO should hold a public hearing for extensive consultation before improvement, and disclose construction costs and charging rates timely for transparency. For households concerned about impacts on interior decoration, ZDHCO should make patient explanations together with community property management companies and community workers, and organize field visits for them. For MLS households, the city government will offer a subsidy of 500 yuan per household, and ZDHCO should still allow them to pay in installments.

(4) Strengthen information disclosure and public participation, and involve vulnerable groups. Extensive publicity should be given by means of TV, broadcast, bulletin board, brochure, etc., so that local residents are fully aware of the Subproject. FGDs involving all stakeholders should be held regularly to strengthen communication and consultation. At such FGDs, a certain percentage of participants should be from vulnerable groups so that their comments and suggestions are incorporated into solutions. A smooth appeal channel should be maintained to coordinate the interests of all stakeholders timely, and prevent issues and conflicts in advance.

5. Resettlement Policy Framework

The RAP under the project is compiled in accordance with the World Bank policy of OP/BP 4.12 and the laws, regulations and local rules of the People's Republic of China. Resettlement implementation will be made by strictly abiding to the policies and criteria made in this resettlement plan. In case of any changes during the implementation, the World Bank will be kept informed in time.

5.1 Fundamental Policies

The legal and policy frameworks of the resettlement action plan are as follows.

- Operational Policy on Involuntary Resettlement (OP/BP 4.12)
- The Law of Land Administration of the People's Republic of China (Adopted in June 1986, revised in 1988, 1998, 2004).
- 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 Related Laws and Regulations

5.2.1 Key Provisions from the World Bank Operational Policy on Involuntary Resettlement (OP 4.12)

The goal of resettlement plan by World Bank is to ensure that the resettled persons will be benefited from the project. As involuntary resettlement is an integral part of the project, the following activities should be performed at the initial and preparatory phase of the project.

(1) Involuntary resettlement should be avoided where feasible, or minimized, exploring all viable alternative project designs.

(2) Where it is not feasible to avoid resettlement, resettlement activities should be conceived and executed as sustainable development programs, providing sufficient investment resources to enable the persons resettled by the project to share in project benefits. Resettled persons should be meaningfully consulted and should have opportunities to participate in planning and implementing resettlement programs.

(3) Resettled persons should be assisted in their efforts to improve their livelihoods and standards of living or at least to restore them, in real terms, to pre-displacement levels or to levels prevailing prior to the beginning of project implementation, whichever is higher.

(4) All the persons impacted by the project are provided prompt and effective compensation at full replacement cost for losses of assets attributable directly to the project to improve or at least restore their living standard.

"Replacement cost" is the method of valuation of assets that helps determine the amount sufficient to replace lost assets and cover transaction costs. In applying this method of valuation, depreciation of structures and assets should not be taken into account.

(5) All persons impacted by the project are to be benefited from the project. Subsidies should be provided in addition to the compensation for the losses of their property for restoration. The persons losing the property, equity, legal domicile permit, business, land exploitation, or building attributed directly to the project, should be treated the same as those with legitimate assets, equity or franchise, in life restoration and asset compensation.

5.2.2 Key Provisions from the Land Administration Law of the People's Republic of China

Article 47 Land requisitioned shall be compensated for on the basis of its original purpose of use.

Compensation for requisitioned cultivated land shall include compensation for land, resettlement subsidies and attachments and young crops on the requisitioned land. Compensation for requisition of cultivated land shall be six to ten times the average annual output value of the requisitioned land for three years preceding such requisition.

Resettlement subsidies for requisition of cultivated land shall be calculated according to the agricultural population needing to be resettled. The agricultural population needing to be resettled shall be calculated by dividing the amount of requisitioned cultivated land by the average amount of the original cultivated land per person of the unit the land of which is requisitioned.

The highest resettlement subsidies to be divided among members of the agricultural population needing resettlement shall not exceed fifteen times its average annual output value for the three years preceding such requisition.

Standards of land compensation and resettlement subsidies for requisition of other types of land shall be prescribed by provinces, autonomous regions and municipalities directly under the Central Government with reference to the standards of compensation and resettlement subsidies for requisition of cultivated land.

Standards for compensation for attachments and young crops on the requisitioned land shall be prescribed by provinces, autonomous regions and municipalities directly under the Central Government.

For requisition of vegetable plots in city suburbs, the land users shall pay towards a development and construction fund for new vegetable plots in accordance with the relevant regulations of the State.

If land compensation and resettlement subsidies paid in accordance with the provisions of the second paragraph of this Article are still insufficient to help the peasants needing resettlement to maintain their original living standards, the resettlement subsidies may be increased upon approval by people's governments of provinces, autonomous regions and municipalities directly under the Central Government. However, the total land compensation and resettlement subsidies shall not exceed 30 times the average annual output value of the requisitioned land for the three years preceding such requisition.

Article 48 After the plan for land compensation and resettlement fees is finalized, related local people's governments shall make an announcement and hear the opinions of the rural collective economic organizations and peasants whose land has been requisitioned.

Article 49 The rural collective economic organization, the land of which is requisitioned, shall accept supervision by making known to its members the income and expenses of the compensation received for land requisition.

The compensation and other charges paid to the unit for its land requisitioned is forbidden to be embezzled or misappropriated.

Article 57 Where land owned by the State or by peasant collectives needs to be used

temporarily for construction of projects or for geologic prospecting, the matter shall be subject to approval by the land administration departments of people's governments at or above the county level. However, if the land to be temporarily used is located in the area covered by urban planning, the matter shall be subject to agreement by the urban planning administration department concerned before it is submitted for approval. The land user shall, depending on who owns the land and who has the land-use right, enter into a contract for the temporary use of the land with the land administration department concerned, or the rural collective economic organization, or the villagers committee and pay compensation for it in accordance with the provisions of the contract.

The temporary land user shall use the land for purposes stipulated in the contract for temporary use of the land and may not build permanent structures on it.

Generally, the period for temporary use of land shall not exceed two years.

5.2.3 Key Provisions from 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.

5.2.4 Key Provisions from 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

ARAP of the World Bank-financed Qiaodong District Central Heating and Indemnificatory Housing Supporting Facility Construction Project, Zhangjiakou City

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.

5.2.5 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.	Item	Rate (yuan/m ²)	Remarks
1	Concrete pavement repair	230	1) Tripled for roads completed within two years, doubled for roads completed within 3-5 years 2) Doubled for excavation during winter (from November to March)
2	Asphalt pavement repair	180	
3	Ordinary tile sidewalk repair	100	
4	Square concrete tile sidewalk repair	150	
5	Color tile sidewalk repair	210	
6	Concrete curbstone repair	45	

Table 5-2 Ditch filling rates

No.	Item	Rate (yuan/m ²)	Remarks
1	Sand filling to depth of 0-1m	90	Filling is performed by administrative departments of municipal facilities to specified density and humidity.
2	Sand filling to depth of 1-2m	140	
3	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/m² per day)

Item	Primary roads	trunk roads	Secondary trunk roads	Branch roads	trunk roads	Alleys	Remarks
Shed	1.5		1	0.8		0.5	Not exceeding these rates for Shijiazhuang City
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 Entitlement of affected Persons

Any person affected by the project is entitled to the rights as shown in Table 5-4.

Table 5-4 Entitlement Matrix

Impact category	Entitlement	Policies and measures	subject of responsibility
Pedestrians motor vehicle shops	convenient transportation traffic safety	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, storing construction materials orderly and	The construction enterprise, the owner

ARAP of the World Bank-financed Qiaodong District Central Heating and Indemnificatory Housing Supporting Facility Construction Project, Zhangjiakou City

			removing waste materials timely to reduce land occupation, and restoring the occupied land to the original condition timely after the completion of construction.	
		Environmental health	preventing flying dust by sprinkling and coverage,	The construction enterprise, the owner
		The number of customers	conducting construction in stages and in a semi-enclosed manner to allow for the passage of pedestrians, bicycles and vehicles, Concentration of construction, speed up the construction progress	The construction enterprise, the owner
boiler workers	Leaving voluntarily	Practical skills training	Practical skills training free of charge	Qiaodong district human resources and social security bureau
		Professional introduction	Provide free employment information, employment	
	Retained workers	reemployment	Doing jobs similar to former jobs, or transferred to other types of jobs	The relevant institutions, property management companies, owners
		Professional skills training	Professional skills training for free	The owner
		Income restoration	No less than before	The relevant institutions, property management companies, owners

6. 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 50.4834 million yuan. Since the Subproject is a municipal project, it will be exempted from excavation repair and road occupation fees, and it is just necessary to restore excavated pavements to the original condition after the completion of construction.

7. Impacts of closedown of scattered coal-fired boiler rooms

Among the 99 scattered small coal-fired boiler rooms (with 159 small boilers in total) to be closed down, 71 are enterprises or public institutions, 12 property management companies and 12 community committees. The closedown of small boiler rooms will affect their workers' livelihoods to some extent.

7.1 Overview of affected workers

In heating year 2014-2015, the 99 small boiler rooms have 259 boiler workers in total, including stokers, repairmen, handymen, etc., all being seasonal workers, namely working at boiler rooms in the 5-month heating period only. The 259 boiler workers include 254 males and 5 females.

In order to learn impacts of the closedown of boiler rooms on boiler workers, the task force sampled 8 boiler rooms randomly among the 99 boiler rooms randomly, and conducted a questionnaire survey and interviews with 20 boiler workers (including two females). It is found that the respondents have the following characteristics:

1. Relatively old age: The 20 respondents range from 41 to 58 years, averaging 50 years.

2. Low educational levels: Among the 20 respondents, 14 have received junior high school education, accounting for 70%; 5 have received primary school education, accounting for 25%; and only one has received senior high school education, accounting for 5%.

3. Lack of other skills: Among the 20 respondents, 10 have been boiler workers for 5-10 years, accounting for 65%, and 3 for over 10 years, accounting for 15% (these 13 workers are certified, accounting for 60%); 14 do farm work at home in the non-heating period, accounting for 70%, and the other 6 do odd jobs.

4. Lack of other income sources: The monthly wages of the 20 boiler workers are within the range of 1,600-2,500 yuan, averaging 2,050 yuan, and their per capita income in the 5-month heating period is about 10,000 yuan. For 15 respondents (75% of all respondents), boiler room income accounts for over 60% of household income.

7.2 Impact analysis

The closedown of boiler rooms will affect workers who have worked there for many years mainly, because they lack other skills, are relatively old, and have difficulty in reemployment. The loss of their current jobs will also affect their household income greatly.

7.3 Affected workers' attitudes to and needs for the Subproject

All the 20 boiler workers interviewed support the Subproject, but most of them worry about future employment and income after the closedown of boiler rooms, especially elder ones. Their main needs are as follows:

1. Workers who have certificates of qualification and having worked at boiler rooms for many years expect to deal with pipeline repair in residential communities for ZDHCO, because they are experienced in their former jobs and can hardly master new skills.

2. Younger (below 50 years) workers also expect to do skilled jobs related to heating through training, such as the routine maintenance of equipment at heating stations.

3. Female workers expect to do cleaning jobs at the heat exchange station or in communities after the completion of the Subproject.

4. Some workers newly recruited in 2014 expect the government to provide them with employment information, and some expect practical skills training if possible in order to work elsewhere.

ARAP of the World Bank-financed Qiaodong District Central Heating and Indemnificatory Housing Supporting Facility Construction Project, Zhangjiakou City

Table 7-1 Basic information on affected boiler rooms and workers, and resettlement modes of boiler workers

No.	Boiler room	Building area (m ²)	Boiler capacity (ton/hour)	# of boilers	Type of operator	Year of close-down	Boiler workers			Average pay (yuan)	reemployed mode		
							Total	Male	Female		To be reemployed by		Leaving
											N	Employer	
1	Buildings 1, 2, 3, 4, 5 and 10, Wuyi Road backstreet	18872	2	2	PMC	2016	2	2	0	1600	1	PMC, cleaning	1
2	Hengkai Property Management (south of Building 9, Fu'an Street)	48280	10	1	PMC	2016	5	5	0	1800	3	PMC, cleaning	2
	Buildings 17-31, Garden Community	40730.51	4	1									
	Buildings 1&2, Fu'an South Street	5383.98	2	1									
3	Buildings 7&8, Zhonghou Alley	4605	2.5	1	Community	2016	2	2	0	1800	2	ZDHCO, repair	0
4	Buildings 5&6, Zhonghou Alley	2235	1.4	1	Audit bureau	2016	2	2	0	1600	0		2
5	Building 1, Zhonghou Alley	1246	0.75	1	Bank	2016	1	1	0	1800	1	Bank, security	0
6	Xiandai Property Management (between Buildings 1&2, Shiqing Alley)	26129.2	6	1	PMC	2016	3	3	0	2000	2	PMC, cleaning	1
7	Tiexie Primary School	10000	2	1	PMC	2016	2	2	0	2000	2	PMC, cleaning	0
8	Relief station	2000	1.5	2	Relief station	2016	1	1	0	1700	0		1
9	Catholic church	1500	1	1	Catholic church	2016	4	3	1	2000	2	Court, cleaning	2
	Residential building of people's court	5750	4	1	People's court								
10	No.1 courtyard of the railway bureau	9062	4	1	Railway	2016	2	2	0	2000	1	Railway, cleaning	1
11	Hengkai Property Management (Tu'ergou Community)	110242	10	1	PMC	2016	6	6	0	1800	2	PMC, repair	4
12	Hengkai Property Management (Tielu Street)	30000	10	1	PMC	2016	7	6	1	1700	4	PMC, repair, cleaning	3
	Behind Building 14, Shengbei Garden	95300	10	1	Residential								
	Behind Building 14, Shengbei Garden	15000	6	1	Residential								
13	90# courtyard	95300	6	1	Residential	2016	3	3	0	2500	2	ZDHCO, repair	1
14	Courtyard of municipal planning bureau	11000	1	1	Bureau	2016	1	1	0	2200	1	Bureau, cleaning	0
15	Planning and design institute	10000	1	1	Institute	2016	1	1	0	2200	1	Institute, security	0
16	Beijing railway division (Lianchuang Building)	152077	10	2	Railway	2016	8	8	0	1600	5	Railway, repair, cleaning, security	5
17	Beside Building 8, Junei Community	11705	1.5	2	Railway	2016	2	2	0	2400			
18	Chunyu Property Management	270000	10	2	PMC	2016	9	9	0	1800	4	PMC, cleaning, security	5
	No.6, Lingyuan South Street	3000	0.5	2									
19	Residential building of postal office	1779.52	2	1	Postal	2016	4	4	0	1800	1	PMC, security	3
	No.2, Lingyuan South Street	23000	2	1	PMC								
20	No.8 Lingyuan Road	12500	2	1	Army	2016	2	2	0	2000	2	Army, repair	0
21	No.4, Lingyuan North Street	1000	0.5	8	Residential	2016	1	1	0	2000	1	ZDHCO, repair	0
22	District local taxation bureau	2700	0.79	1	Bureau	2015	1	1	0	2500	1	Bureau, cleaning	0

ARAP of the World Bank-financed Qiaodong District Central Heating and Indemnificatory Housing Supporting Facility Construction Project, Zhangjiakou City

23	Yijun Garden Hotel	200	1	1	Hotel	2015	1	1	0	1800	1	Hotel, cleaning	0
24	2# courtyard of railway division	68351	6	2	Railway	2016	3	3	0	2200	1	Railway, security	2
25	Hengkai Property Management	15000	6	1	PMC	2016	5	5	0	1800	1	PMC, cleaning	2
	147 Billiard Hall	5000	2.5	1	Residential						1	ZDHCO, repair	
	Dong'an Mall	41500	2	2	Dong'an Mall						1	Cleaning	
26	Residential quarter of 251 Hospital	35000	10	2	Hospital	2017	5	5	0	1800	3	Hospital, odd jobs	2
	Residential quarter of 251 Hospital	20000	6	1									
27	Residential quarter of air forces	70000	4	3	Army	2017	4	4	0	2500	2	Army	2
28	Zhongbao Community	72000	6	2	Community	2015	4	4	0	2000	1	Community, cleaning	3
29	Kaifa residential quarter	14600	2	1	Residential	2015	2	2	0	1800	2	ZDHCO, repair	0
30	Shijiazhuang No.7 Construction Co.	2542.5	1.5	1	Company	2016	1	1	0	2200	0		1
31	Zhangjiakou Gas Co.	5000	1	1	Company	2016	1	1	0	2200	1	Company, cleaning	0
32	China Unicom Zhangjiakou Branch	15700	7	1	Company	2015	3	3	0	1700	2	Company, security, cleaning	1
33	Residential quarter of agriculture college	10294	1.5	1	College	2015	2	2	0	2000	1	College, cleaning	1
34	Residential quarter of normal college	17800	3	1	College	2015	2	2	0	2100	2	College, cleaning	0
35	Residential quarter of Industrial and Commercial Bank of China	12100	4	1	Bank	2015	2	2	0	2500	2	Bank, cleaning	0
36	No.7 High School	13000	4	1	School	2015	2	2	0	1900	1	School, security	1
37	Zhangjiakou Municipal Transport Bureau	5000	2	1	Bureau	2015	1	1	0	2000	0		1
38	Residential building of granary	26000	2	1	Granary	2016	2	2	0	2200	0		2
39	Residential building of oil company	7326	4	1	Company	2016	9	9	0	1600	1	Company, cleaning	1
	Shengshi Garden	22039	4	1	PMC						1	PMC, cleaning	1
	Jiahe Community	7181.05			PMC						1	PMC, cleaning	1
	Jinsha Community	10131.03			PMC						0		1
	Residential quarter of fuel company	5284			Company						2	Company, cleaning	0
40	Railway community	33217	4	1	Railway	2016	3	3	0	2800	1	Railway, security	2
41	Residential building of postal office	13024	1.5	2	Postal office	2015	2	2	0	2400	0		2
42	Tianlun Garden	11498	2	1	PMC	2015	2	2	0	1800	2	PMC, security	0
43	No.15 Wuyi Road backstreet	5390	1.5	1	PMC	2016	1	1	0	1600	0		1
44	22# courtyard, Wuyi Road backstreet	1789	1	1	Bureau	2016	1	1	0	1600	1	Bureau, odd jobs	0
45	Building 8, Dong'an Street; Building 69, Shengli North Road	14200	4	2	Residential	2016	2	2	0	2500	2	ZDHCO, repair	0
46	Residential quarter of 251 Hospital	36949	6	2	Hospital	2016	3	3	0	2600	1	Hospital, cleaning	2
47	Residential building of water resources bureau	1100.25	0.5	1	Residential	2016	1	1	0	2000	1	ZDHCO, repair	0
48	No.37 Jianguo Road	3564	1	1	Company	2015	1	1	0	2000	1	Company, cleaning	0
49	No.38 Jianguo Road	21500	6	1	People's court	2015	2	2	0	2000	0		2

ARAP of the World Bank-financed Qiaodong District Central Heating and Indemnificatory Housing Supporting Facility Construction Project, Zhangjiakou City

50	No.77 Shengli North Road	4550	1.5	1	Army	2016	1	1	0	1600	1	Army, cleaning	0
51	People's Bank of China Zhangjiakou Sub-branch	15000	6	1	Bank	2016	5	5	0	3300	2	Bank, odd jobs	3
	No.99 Wuyi Street	23286	6	1									
52	97# courtyard, Wuyi Street	3333	1	1	Residential	2016	2	2	0	1800	0		2
	No.97 Wuyi Street	8407	2	1									
53	Longteng Garden Community	65000	10	1	PMC	2017	3	3	0	1700	3	PMC, cleaning	0
54	Seismic central station	1800	0.5	1	Bureau	2017	2	2	0	2000	2	Bureau, cleaning	0
	No.7 Linyuan West Street	30000	10	1									
55	Zhangjiakou Water Supply Corp.	30000	11	1	Company	2017	2	2	0	1600	2	Company, odd jobs	0
56	No.10 High School	25000	10	1	School	2015	2	2	0	2000	1	School, cleaning	1
57	No.7 Linyuan Road	3000	2	1	Residential	2016	1	1	0	1800	1	ZDHCO, repair	0
58	No.9 Linyuan West Street	30000	2	3	Bank	2015	3	3	0	2000	1	Bank, odd jobs	2
59	Hercules Boiler Co., Ltd.	5800	4	1	Company	2017	2	2	0	1600	0		2
60	Dongzheng Building Materials	10000	4	2	Company	2017	2	2	0	1700	2	Company, security	0
61	Mingchen Garden	20000	6	1	PMC	2017	2	2	0	2000	2	PMC, cleaning	0
62	Industrial Installation Co.	2000	1	1	Company	2017	1	1	0	1800	0		1
63	3#, 4#, 6#, Dong'an Street	17333	2	1	Residential	2016	1	1	0	1800	1	ZDHCO, repair	0
64	Shangyuan Community	44564.77	4	2	PMC	2016	4	4	0	1700	1	PMC, cleaning	3
65	State-owned assets commission	2232	1	1	Commission	2016	1	1	0	2000	0		1
66	Price control bureau	4087	1	1	Commission	2016	1	1	0	2600	0		1
67	Zhangjiakou Hotel	12940	6	1	Hotel	2016	2	2	0	2000	2	Hotel, odd jobs	0
68	Municipal federation of trade unions	30466.6	10	1	Federation	2016	4	4	0	2200	4	Federation, cleaning	0
69	Suburban Cooperative Union	8371.94	2	1	Union	2016	1	1	0	1800	0		1
70	Century Trading Cooperative	26552.98	4	1	Cooperative	2016	2	2	0	2500	2	Cooperative, repair	0
71	8#, 9#, 10#, 11#, 13#, 14# Beicaiyuan	21990.27	4	1	Residential	2016	2	2	0	1600	2	ZDHCO, repair	0
72	Buildings 1#2# of Beijing railway division	11120.75	2	2	Railway	2016	2	2	0	2500	2	Railway, cleaning	0
73	Malu Street Kindergarten	7854.82	2	2	PMC	2016	2	2	0	1800	1	PMC, cleaning	1
74	7#, 8# Dong'an Street	6400	2	1	Residential	2016	1	1	0	2400	1	ZDHCO, repair	0
75	Building 9, Zhonghou Alley	3375	2	1	Brigade	2016	3	3	0	2000	1	Education committee, cleaning	2
	138# courtyard, Wuyi Street	11865	1	1	Education committee								
76	Buildings 2&3&4, Zhonghou Alley	5260	1	1	Brigade	2016	1	1	0	1800	0		1
77	Buildings 1-5, 18&22, Damalu	18000	4	1	Residential	2016	3	3	0	2000	2	ZDHCO, repair	1
78	Buildings 1-6 of bus company	13607.72	3	1	Company	2015	4	4	0	1600	1	Company, odd jobs	1
	Jianguo Hospital	15000	6	1	Hospital						2	Hospital, odd jobs	0
79	Postal Hotel	8158.08	1	2	PMC	2016	2	2	0	2400	1	PMC, cleaning	1

ARAP of the World Bank-financed Qiaodong District Central Heating and Indemnificatory Housing Supporting Facility Construction Project, Zhangjiakou City

80	Residential building of Xinhua Bookstore	10000	2	1	Residential	2017	3	3	0	2200	2	ZDHCO, repair	1	
81	Residential building of Industrial and Commercial Bank of China	14500	4	1	Bank	2017	7	6	1	1900	4	Bank, security, cleaning	3	
82	Zhongnan Building Materials	1200	0.2	1	Factory	2017	1	1	0	1800	0		1	
83	Building 10 of Wuyi Road front-street	8941	2	1	Association	2016	1	1	0	2000	0		1	
84	Municipal people's congress	20000	4	1	Congress	2017	2	2	0	2200	1	Congress, odd jobs	1	
85	TCM hospital and residential quarter	20000	6	1	Hospital	2017	4	4	0	1700	1	Hospital, odd jobs	1	
	Department store	20000	4	1	Store						2	Store, cleaning	0	
86	Dongsheng Hotel	16250	6.5	1	Hotel	2015	2	2	0	1600	0		2	
87	Zhangjiakou Hengtong Hotel Co., Ltd.	2500	1	1	Hotel	2015	1	1	0	1800	0		1	
88	Residential quarter of commercial bank	12000	7	1	Bank	2017	2	2	0	2300	2	Bank, cleaning	0	
89	Binlihua Hotel	6000	1	1	Hotel	2017	4	3	1	2200	2	Hotel, odd jobs	0	
	China Construction Bank Zhangjiakou Branch	15000	6	1	Bank						2	Bank, cleaning	0	
90	Old Buildings 5&6, , Wuyi Road backstreet, and Buildings 70-74, Shengli North Road	8100	1.5	1	Residential	2016	2	2	0	2000	2	ZDHCO, repair	0	
91	Army residential quarter	73160	5	6	Army	2017	11	10	1	2000	5	Bureau, odd jobs	2	
	Zhangjiakou State Taxation Bureau	10000	4	1	Bureau						2	Committee, odd jobs	2	
	Residential quarter of municipal CPC committee	18656.53	4	1	Committee									
	State taxation bureau and residential quarter	20755.31	4	1	Bureau									
92	Gas station	4200	0.5	3	Army	2017	6	6	0	1800	2	Army, cleaning	4	
	Army residential quarter	21000	1.5	2										
93	Luxing Ecology Co., Ltd.	15000	6	1	Company	2017	2	2	0	2200	0		2	
94	Central blood station	6775.68	2	1	Station	2017	1	1	0	2600	0		1	
95	Residential quarter of traffic police	17250	2	1	Trade police	2015	3	3	0	2100	3	Trade police, cleaning	0	
96	Residential building of utility administration bureau	1500	1	1	Bureau	2015	1	1	0	2200	0		1	
97	Residential building of pharmaceutical company	11907.07	2	1	Company	2017	2	2	0	1600	2	Company, odd jobs	0	
98	Qiaodong No.3 Kindergarten	7500	2	1	PMC	2017	2	2	0	1600	2	PMC, cleaning	0	
99	China Coal Machinery Co., Ltd.	15000	6	1	Company	2017	2	2	0	1700	1	Company, cleaning	1	
Total		2587229		158			259	254	5		149		110	

Note: PMC = property management company

7.4 Resettlement of affected workers

7.4.1 reemployment plan

ZDHCO, 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. After the end of heating year 2014-2015, 110 will leave voluntarily, in which 59 have found new jobs on construction sites, 23 non-local ones plan to find jobs elsewhere, and 28 younger ones expect training on practical skills, such as cooking, pastry production and car care.

2. 149 boiler workers expect to do their current jobs or similar jobs. At the operation stage, the Subproject will generate a good number of repair and maintenance jobs. ZDHCO has decided to employ existing boiler workers on a voluntary basis. Boiler workers at boiler rooms owned by former employers or property management companies may do such jobs as cleaner, security guard and handyman, and may deal with pipeline maintenance and troubleshooting in the heating period. Boiler workers at boiler rooms owned by community committees will be employed by ZDHCO after training.

3. ZDHCO will offer skills training to staying and leaving boiler workers together with the Qiaodong District Labor and Social Security Bureau for free to prepare them for new jobs.

Through these measures, the owner will ensure that all involuntarily unemployed boiler workers be reemployed and their wages are not reduced.

7.4.2 Entitlement of the boiler workers

Table7-2 Entitlement Matrix

Impact category		Entitlement	Policies and measures	subject of responsibility
boiler workers	Leaving voluntarily	Practical skills training	Practical skills training free of charge	Qiaodong district human resources and social security bureau
		Professional introduction	Provide free employment information, employment	
	Retained workers	reemployment	Doing jobs similar to former jobs, or transferred to other types of jobs	The relevant institutions, property management companies, owners
		Professional skills training	Professional skills training for free	The owner
		Income restoration	No less than before	The relevant institutions, property management companies, owners

8. Skills training costs and other costs

The Subproject's recovery costs include skills and reemployment training costs for boiler workers, and external monitoring costs, totaling 230000 yuan.

Table 8-1 Skills training costs and other costs

Item	Amount (0,000 yuan)	Remarks
Skills training costs	3	Borne by ZDHCO
Reemployment training costs	5	Borne by the Qiaodong District Labor and Social Security Bureau
External monitoring costs	15	
Total	23	

9. Public participation and grievance redress

9.1 Public participation

The importance has been attached to public participation and communications in the process of compiling the resettlement action plan. The public participation will be further encouraged in implementation phase.

9.1.1 Public Participation during RAP Compiling Phase

From March to November 2014, the staff of ZDHCO 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.

During the survey, the task force conducted adequate, equal consultation with local residents to collect their needs and suggestions to be incorporated into the subproject design. At FGDs and in personal interviews, the task force introduced the scope of construction, objectives and potential social impacts of the Subproject, and collected comments and suggestions from local residents, especially from the poor and women.

9.1.2 Public Participation during the Implementation of the RAP

Public participation will be encouraged in the whole process of implementation of the RAP:

- 1) Public participation during construction planning: During construction planning, mainly the planning of heat exchange stations and heating pipelines, an FGD involving sub-district and community officials, and residents will be held to collect their comments.
- 2) Public participation during construction: During construction, the owner and the construction agency will communicate with the APs and affected entities frequently, encourage them to give suggestions on alleviating impacts, and supervise the construction process to minimize inconvenience during construction, and ensure the safety of primary and high school students.
- 3) Participation in construction: During construction, the construction agency will hire local laborers first equal conditions and give priority to laborers in vulnerable households and female laborers through consultation with the affected communities.
- 4) Public participation during the reemployment of boiler workers: The owner will determine the reemployment program for boiler workers through adequate consultation with them.

9.2 Grievance Mechanism and Channels

The public participation is always encouraged in both phases of compilation and implementation of the RAP. However, it is inevitable to encounter more or less problems in actual process. Therefore, it is necessary to timely solve these problems to ensure the smooth progress in project construction, In addition to the existing governmental channels for filing complaints and grievance (including the offices of complaints and appeals at county, municipal and provincial levels, the law enforcement departments of supervision, jurisdiction and prosecution, and the department of disciplinary inspection), a public and effective assess to filing the complaints and grievance has been provided specifically for this project. 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 ZDHCO or the community/village committee. 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.

ARAP of the World Bank-financed Qiaodong District Central Heating and Indemnificatory Housing Supporting Facility Construction Project, Zhangjiakou City

Stage 3: If the appellant is dissatisfied with the disposition of Stage 2, he/she may apply for administrative arbitration with the Qiaodong District 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.

10. Organizational setup

10.1 Organization setup and function

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

The Zhangjiakou 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 ZDHCO 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.

10.2 Staffing

In order to facilitate impact restoration, the owner has established the Subproject Impact Restoration Leading Group, and a smooth information channel. Its staff is composed of specialized technicians and administrators, and has considerable experience in resettlement and coordination. See Table 10-1.

Table 10-1 Staffing of the Impact Restoration Agencies

Agency	Name	Gender	Title	Title in project	Responsible for
Impact Restoration Leading Group	Wang Zhigang	Male	Chairman of ZDHCO	Team leader	Planning & coordination
	Zhang Zuowei	Male	General manager of ZDHCO	Deputy leader	Administration
	Zhao Jinbao	Male	Chief engineer of ZDHCO	Deputy leader	Engineering technology
	Zhang Zuowei	Male	General manager of ZDHCO	Director	Administration
	Wang Chunli	Female	Staff member of ZDHCO	Deputy director	Public relations Affect recovery
	Zhou Haizhen	Female	Staff member of ZDHCO	Staff member	Public relations
	Guo Feng	Female	Staff member of ZDHCO	Staff member	Public relations

11. M&E

In order to ensure the smooth implementation of the resettlement action plan, the whole process will be monitored in perspectives rehabilitation in the project. Both the internal and external monitoring will be applied.

The RAP and social impacts will be monitored, including internal and external monitoring.

11.1 Internal Monitoring

Internal monitoring will be implemented by the PMO.

The PMO staff has participated in the preparation of the RAP, and assisted the social assessment agency in social assessment to learn the Subproject's potential negative social impacts during and after construction.

The scope of internal monitoring includes:

- 1) Implementation of the policies in the RAP and social assessment report;
- 2) Grievances and appeals of the APs;
- 3) Mitigation or elimination of negative social impacts;
- 4) Public participation and consultation;
- 5) Support for vulnerable groups; and
- 6) Satisfaction of beneficiary population

11.2 External M&E

External M&E is regular M&E on the Subproject's social impacts out of the implementing agencies to see if negative social impacts have been mitigated or eliminated, and if the expected objectives and benefits are met. Through external M&E, comments and suggestions on mitigating or eliminating negative social impacts will be proposed, an early warning system will be provided to the PMO and a feedback channel provided to the affected population.

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

The main external M&E indicators are:

- 1) Progress: including construction progress, growth of beneficiary population, etc.;
- 2) Quality: satisfaction of beneficiaries during project implementation, etc.;
- 3) Ability to pay: ability to pay of residents after heating rate increase, especially poor households
- 4) Grievance redress: if grievances and appeals during and after construction have been addressed, etc.

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.

Appendix 1: Due Diligence Report of Zhangjiakou Power Plant

1. Overview of Zhangjiakou Power Plant

Zhangjiakou Power Plant is located west of Zhujiashuang Village, Hezixi Xiang, Xuanhua District, in close vicinity to the Jingbao and Jingzhang Railways. It has eight 300MW steam turbine generator units with a total capacity of 2,400MW.

The 4x300MW straight condensing units of Phase 1 were completed and put into operation in 1995, and the 4x300MW straight condensing units of Phase 2 in 2001. The plant is wholly owned by Datang International Power Generation Co., Ltd. According to the heating plan of Zhangjiakou City, the plant will be the main heating source of the city. Two 300MW units (5# and 6#) have been improved to meet the heating demand of a heating area of 12 million m².

2. Land occupied for Zhangjiakou Power Plant

Zhangjiakou Power Plant has a floor area of 216 mu, and its land use permit was obtained in 1991.

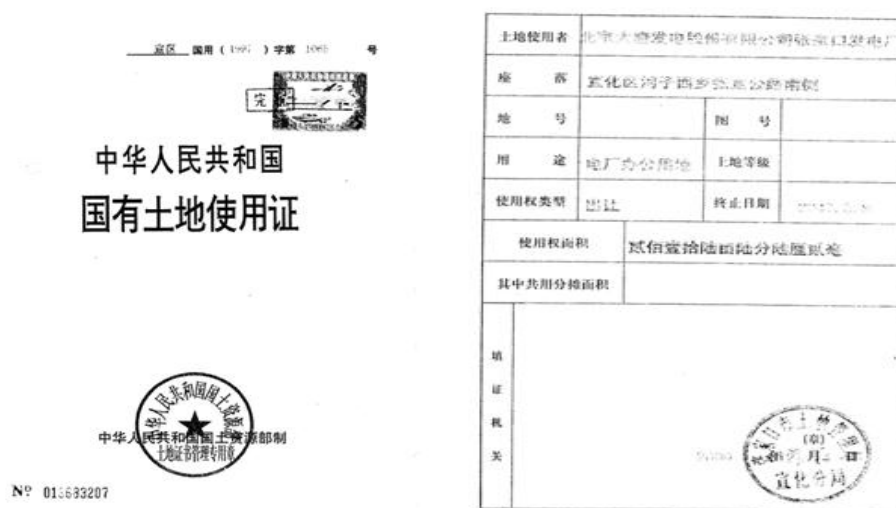


Figure 6: Land use permit of Zhangjiakou Power Plant

Appendix 2: Due Diligence Report of ZDHCO

1. Overview of ZDHCO

ZDHCO, founded in January 2009, is a solely state-funded enterprise specializing in central urban heating, construction, repair, maintenance, correction protection, heat insulation, consulting, etc. Phase 1 of its central heating project broke ground in April 2009 and was put into operation in November 2009.

Currently, ZDHCO has four 64MW boilers, primary pipelines of 31.48 kilometers and 43 community heat exchange stations, serving a heating area of 34 km² and a population of 249,600, and has 6 functional departments and a workforce of 83, including 5 with senior titles, two with medium titles and 23 specialized technicians.

2. Land occupied for ZDHCO

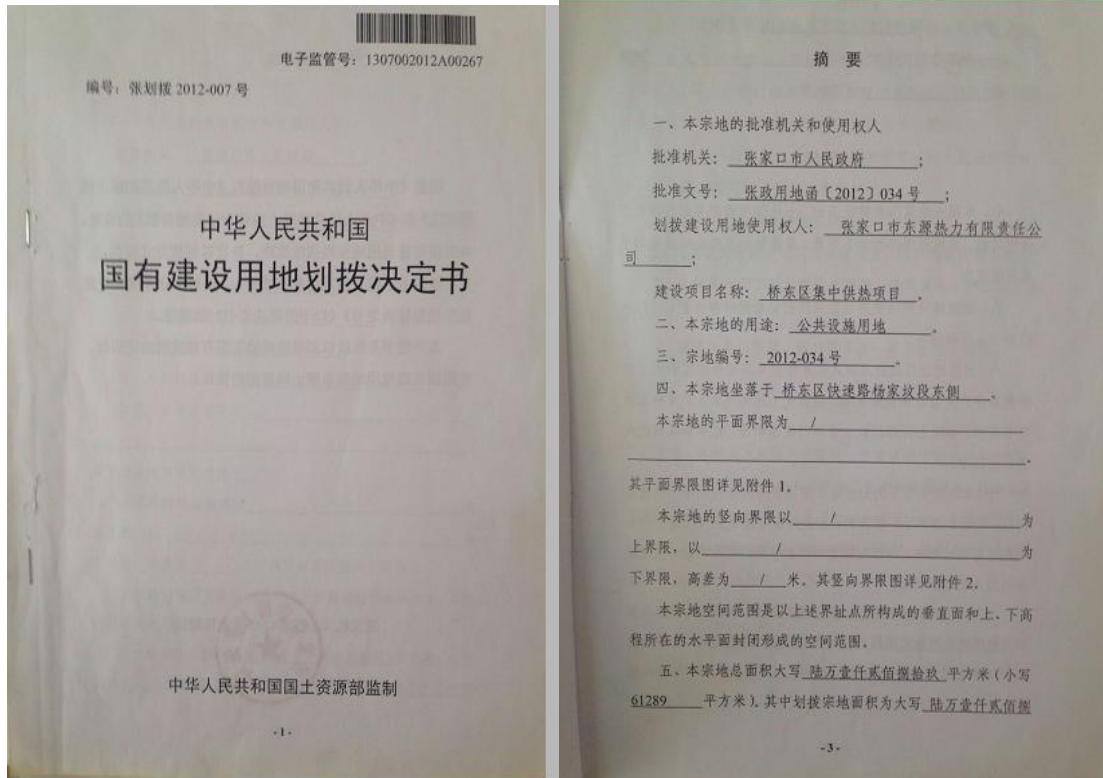
ZDHCO is located on public facility land (allocated by the government) on Yangjiafen East Road in Qiaodong District, with a floor area of 91.93 mu.

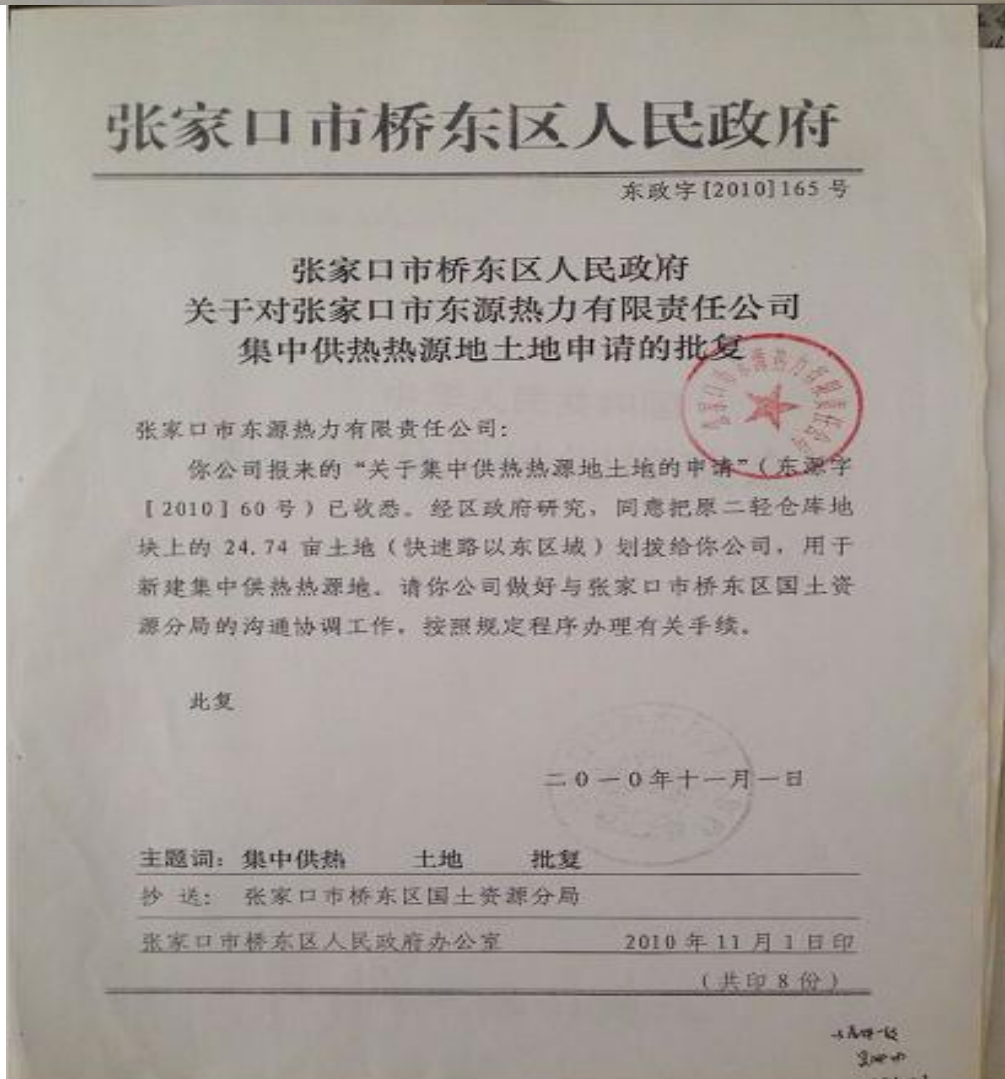
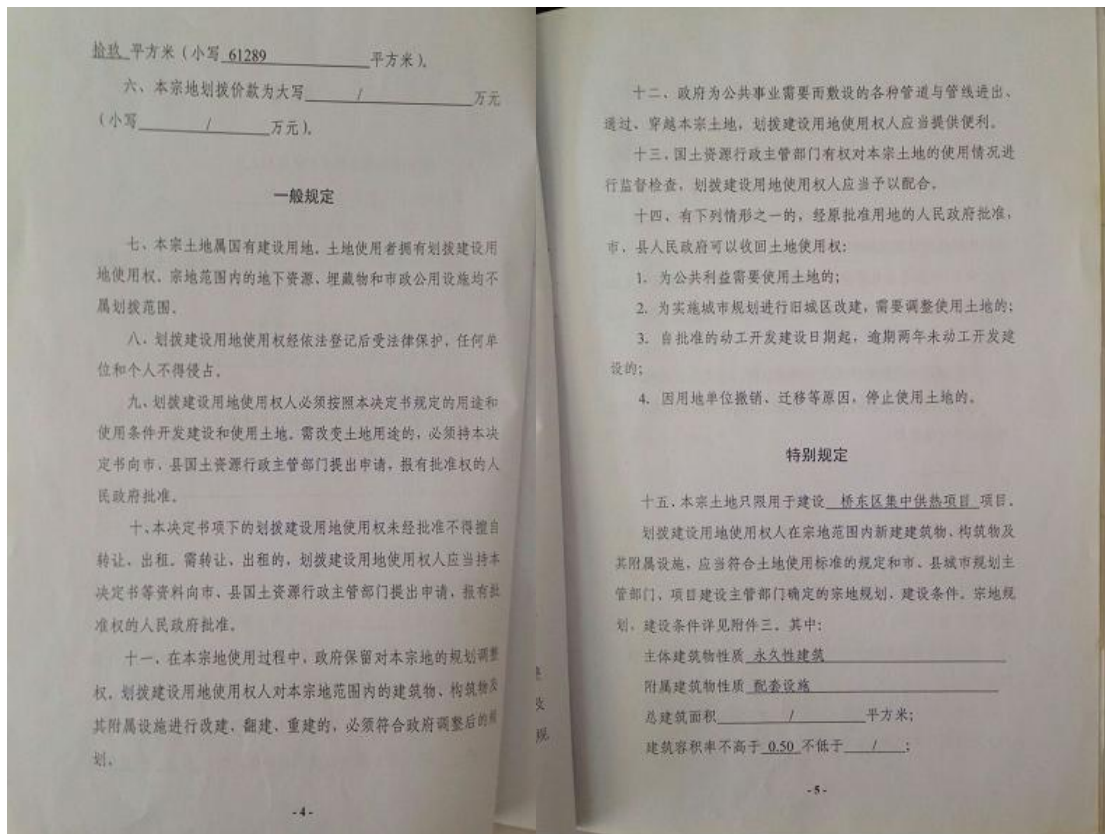
In December 2009, ZDHCO obtained the construction land planning permit. In June 2012, the

ARAP of the World Bank-financed Qiaodong District Central Heating and Indemnificatory Housing Supporting Facility Construction Project, Zhangjiakou City

public facility land of ZDHCO was approved by the Zhangjiakou Municipal Government with Document ZMGLU [2012] No.034, which issued the Decision to Allocate State-owned Construction Land (No.2012-007) later in 2012.

The land occupied by ZDHCO includes two parts, in which the land occupied for the coal-fired boiler room (24.74 mu) was allocated by the Qiaodong District Government in November 2010.





Appendix 3: Due Diligence Report of the Heat Exchange Station

The land to be used for the heat exchange station under the Subproject formerly belonged to China Unicom Zhangjiakou Branch (Unicom Zhangjiakou for short). It was resolved at a head's executive meeting of the Qiaodong District Government in August 2012 that Unicom Zhangjiakou would transfer the right to use 1,046.775 m² (1.57 mu) of land in its residential quarter to ZDHCO for the construction of a heat exchange station for an amount of 407,100 yuan, which would be used to partly offset pipeline reconstruction costs for the residential quarter of Unicom Zhangjiakou. In December 2014, ZDHCO decided to use this plot for the construction of a heat exchange station.

Since this plot is insufficient for the heat exchange station (2.84 mu in total, with a gap of 1.27 mu), the Qiaodong District Government decided to make up the gap with unused state-owned construction land. See Appendix 4: Relevant Documents (2).

Appendix 4: Relevant Documents

1. Notice of the Zhangjiakou Municipal Utility Administration Bureau on Policies for Urban Central Heating

	永久		159
2010		6	6

张家口市人民政府办公室(通知)

政办字[2010]72号

张家口市人民政府办公室
关于转发市市政公用事业管理局等三部门
《关于实施城市集中供热的有关政策》的通知

各区人民政府,高新区管委会,产业集聚区管委会,市政府有关部门:

市市政公用事业管理局、市财政局、市物价局《关于实施城市集中供热的有关政策》已经市政府研究同意,现予转发,请认真组织实施。



张家口市市政公用事业管理局
张家口市财政局
张家口市物价局
关于实施城市集中供热的有关政策

为改善城市环境,提高居民生活质量,加快发展城市集中供热,规范城市集中供热建设行为,实现城市供热持续健康发展,特制定如下政策规定。

一、集中供热入网范围和要求

(一)按照集中供热规划,各集中供热企业供热管网覆盖范围内的采暖建筑,均应并入集中供热管网。具体的入网计划和时间表按照政府统一安排由各供热企业制定并实施。入网的业主和物业公司要积极支持,移交必要的资料并配合施工,任何单位和个人不得阻挠。

(二)城市规划区内新建供热热源必须经供热主管部门审查批准。新建项目必须并入集中供热管网实行集中供热,严禁单独建设燃煤锅炉房供热。项目规划时必须预留热力站建设用地,其供热工程与主体工程同时设计、同时建设、同时验收投入使用。项目规划设计阶段,应当邀请供热企业参加或征求供热企业意见。供热工程建设必须按照供热企业统一的技术标准和设计参数进行设计施工。工程竣工经供热企业验收合格后方可联网供热。

- 2 -

(三)接入集中供热管网的新建建筑应达到民用建筑节能标准。供热系统必须安装热计量装置和室内温度调控装置。居民住宅建筑必须达到分户控制要求。

(四)既有建筑并入集中供热管网后,按照供热规划对具备条件的原有锅炉房改建为热力站,锅炉房用地和地上建筑由业主或产权单位无偿提供给热力公司管理和使用。规划不做为热力站的锅炉房一律拆除,改建为绿地或小区公用配套设施。

(五)锅炉房改建或拆除后,原有锅炉房的锅炉及附属设备资产由产权方自行处置,原锅炉房工作人员由原单位自行安排,陈欠水、电费由原单位负责结清,债权债务由原单位继续追偿。

(六)未实现分户控制的居住建筑应首先进行分户改造,改造完成后方可申请入网。

(七)达到建筑节能标准的既有建筑必须同时安装热计量装置,新建建筑和既有节能建筑全部实行计量收费。

二、供热一次管网及热力站建设与维护

(一)集中供热项目一次管网及热力站建设由供热企业负责,建设投资可采取向用热方收取供热管网建设费的方式筹集。

(二)供热管网建设费由集中供热企业统一收取。收费标准:

- 1、新建居民建筑 70 元/平方米(建筑面积,下同);
- 2、新建非居民建筑 90 元/平方米;
- 3、既有非居民建筑 30 元/平方米(房屋产权证建筑面积);
- 4、既有居民建筑不再收取集中供热管网建设费。

(三)产业集聚区供热管网建设费与市区执行统一标准。

(四)新建建筑供热管网建设费由房屋建设单位或开发商一次性缴纳,计入建房成本,不得在房价以外加收供热管网建设费。供热管网建设费计费面积以建设项目审批部门批准的全部采暖房屋建筑面积为准,工程验收后可按实际竣工的建筑面积结算,实行多退少补。

(五)既有非居民建筑供热管网建设费由产权方一次性缴纳。

(六)原锅炉房不能利用须异地建设热力站的,产权方(用户)应提供热力站建设用地。

(七)供热一次管网及热力站由供热企业负责维护和管理。

三、供热二次网建设与维护

(一)新建项目的二次网(庭院管网,下同)供热设施按照供热企业统一的技术标准由建设单位或开发商负责实施,也可委托供热企业代建,工程费用按照现行河北省预算定额结算,列入建房成本。

(二)既有非居民建筑二次网由产权单位负责改造,也可委托供热企业代为改造,工程费用按照现行河北省预算定额结算。

(三)既有居民建筑二次网改造由供热企业统一实施,工程费用按照现行河北省预算定额结算,按建筑面积向用户分摊。

(四)二次网连接线(小区红线外管线)由供热企业统一建设,并负责维护管理。

(五)非居民建筑二次网维护管理由产权单位负责,也可委托

供热企业代为维护管理,维修费用按实际发生向产权方收取。

(六)居民建筑二次网维护管理由小区物业公司负责,实行有偿服务,按实际发生维修费用向居民收取。

四、建筑内供热设施建设与维护 and 分户改造

(一)新建项目的建筑内供热设施由房屋建设单位或开发商与主体建筑同步建设,投资列入房屋建造成本。

(二)楼梯间供热设施,由供热企业负责统一维护管理,实行有偿服务。

(三)用户室内供热设施由用户自行维护。委托物业公司或供热企业维修的,实行有偿服务。

(四)既有居民住宅分户改造工程以小区为单位统一实施,其中户外共有(楼梯间)供热设施由供热企业统一建设,工程费用按现行河北省预算定额结算,由供热企业向用户据实收取,可按户(或建筑面积)合理分摊。

(五)用户室内供热设施改造由用户自行委托有相应资格的专业施工队伍完成,费用由用户承担,供热企业提供技术支持并负责分户验收,未通过验收的不予并网供热。

热网 供热 供热中 供热公司 供热主

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(热网 供热)

2. Minutes of the head's executive meeting of the Qiaodong District Government (QDG [2012] No.11)

张家口市桥东区人民政府 区长办公会议纪要

东政纪[2012]11号

★

张家口市桥东区人民政府 关于联通小区换热站建设及管网改造事宜的 区长办公会议纪要

时 间：2012年8月20日

地 点：区政府六楼会议室

主 持 人：高 军

参加人员：冀学飞、韩峰伟（区政府办），杨军（胜利路办事处），王志刚、张作为、王世军、李刚（东源热力公司），温建华、陈雁、耿建国、王世飞（中国联通张家口分公司）

会议内容：为改善中国联合网络通信有限公司张家口分公司（以下简称联通公司）小区南、北苑集中供热质量，按照全市集中供热相关文件规定，会议就联通小区换热站建设及管网改造事宜进行专题研究。会议首先听取了张家口市东源热力有限责任公司（以下简称东源公司）及联通公司就该小区供热情况的汇报，会议议定：

一、根据张政办[2010]第72号文件规定，由联通公司委托东源公司对联通南苑、北苑及5号院小区内的供热系统进行分户及庭院管网改造。改造费用由联通公司和业主共同承担。具体承担方式为：居民负担室内管网改造费用25元/平方米；联通公司负责楼道管网及庭院管网的改造费用（其中南、北苑及5号院楼梯间公共管道改造费用491000元，该费用联通公司向东源热力公司缴纳后，由东源热利于2012年采暖季前改造完成；庭院管网改造费用待联通公司宣化大道办公楼接入集中供热时按照工程预算向东源公司据实缴纳，交费后由东源公司负责实施改造）。

二、联通公司依据张家口市桥东区人民政府东政字[2011]70号文件要求，将位于七里山渠以东、杨家坟北路5号院3号楼以南、杨家坟北路以西，5号院锅炉房南墙以北，面积共计约1046.775平方米地块所有权有偿转让给东源公司用于联通公司小区换热站新建。该地块属三级工业用地，地价每亩189300元至259300元，按照最高地价补偿费用约为407101元（其地理位置详见《场地理位置示意图》），抵顶南、北苑家属院及杨家坟5号院楼梯间公共管网改造费用491000元。联通公司小区新建换热站建成后，东源公司将原联通小区南苑换热站临时彩板用房无偿移交联通公司使用。

三、上述土地转让事宜由联通公司负责向其上级主管单位申请，批准后积极协助东源公司办理该地块土地产权灭迹

移交过户手续。如上述土地无法转让给东源公司，按照张政办[2010]第72号文件规定，东源公司无偿占用上述土地及地上锅炉房并改建综合换热站，联通公司积极协助东源公司取得该地块改建换热站的规划开工手续，用于抵顶南、北苑家属院及杨家坟5号院楼梯间公共管网分户改造费用49.1万元。

四、东源公司要按照相关规范要求，确保改造工程质量 and 进度。联通公司和东源公司在施工过程中要协同配合，认真做好居民工作，积极化解矛盾，保证工程的正常进行。

会议指出，与会各方会后要认真落实会议议定事项，积极推进改造工程和换热站改建相关工作，确保联通小区南、北苑居民冬季正常供热。

主题词：集中供热 联通小区 会议纪要

张家口市桥东区人民政府办公室

2012年8月20日印

(共印8份)