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Annex 1 ODA declarations

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SECTION A. Project Title

Antai Group Waste Gas Recovery for Power Generation Project

SECTION B. Project description

Antai Group Co., Ltd. is a large manufacturer of iron, steel, and steel products headquartered in Shanxi Province of China. The Project Activity is a waste coal gas recovery and utilization for power generation project developed by Antai Group Co., Ltd. The objective of the project is to fully recover and utilize the waste coal gas for electricity and steam cogeneration and to reduce fossil fuel-based energy consumption and decrease air pollution. The waste gas comes primarily from the facility's blast furnaces, with some additional surplus gas from steel converters and coke ovens.

The project includes installation of 2×25MW extracted-condensing steam turbine units, 4×75t/h medium-temperature and medium-pressure gas-fired boilers and relevant auxiliary equipments. The project's total installed capacity will be 50MW. The annual power generation is expected to be 300 GWh and net power supply is 264GWh and the annual steam generation is estimated as 536.25TJ. The electricity and the steam generated by the proposed project would be totally consumed in the production process of Antai Group Company.

In the absence of the project, a large amount of combustible waste gas generated by Antai iron & steel and machine coke production is flared and released to the atmosphere. In the same time, all electricity demand by AGC is imported from the North China Power Grid (NCPG). Therefore, the power generated by the project activity would displace electricity imported from the North China Power Grid, which is dominated by fossil fuel-fired power plants, and reduce an estimated 312,828 tons of CO₂e per year.

Besides the GHG emission reductions, the Project would contribute to local and national sustainable development through:

- ◆ Reduction of air pollutants of coal fired power plants such as SO₂ and TSP;
- ◆ Reduction of fossil fuel-based energy consumption, thus improving energy efficiency;
- ◆ Reduction of water consumption by using air cooling generator units, conforming to national energy saving policies;
- ◆ Mitigation of power demand load of local grid;
- ◆ Creation of about 154 employment opportunities for the local community;

Promotion of implementation of similar activities in the region.






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SECTION C. Proof of project eligibility

C.1. Scale of the Project

[See Toolkit 1.2.a]

Please tick where applicable:

Project Type	Large	Small
		
		
		
	<input checked="" type="checkbox"/>	
		

	
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C.2. Host Country

People's Republic of China

C.3. Project Type

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[See Toolkit 1.2.c and Toolkit Annex C]

Please tick where applicable:

Project type	Yes	No
Does your project activity classify as a Renewable Energy project?		
Does your project activity classify as an End-use Energy Efficiency Improvement project?	<input checked="" type="checkbox"/>	

Please specify your project type:

Scope 01 Energy industries
Scope 04 Manufacturing industries

Pre Announcement	Yes	No
Was your project previously announced?		<input checked="" type="checkbox"/>
Explain your statement on pre announcement		

C.4. Greenhouse gas

[See Toolkit 1.2.d]

Greenhouse Gas	
Carbon dioxide	<input checked="" type="checkbox"/>
Methane	<input type="checkbox"/>
Nitrous oxide	<input type="checkbox"/>

C.5. Project Registration Type

[See Toolkit 1.2.f]

Project Registration Type	
Regular	<input checked="" type="checkbox"/>

Pre-feasibility assessment	Retro-active projects (T.2.5.1)	Preliminary evaluation (T.2.5.2)	Rejected by UNFCCC (T.2.5.3)
	<input checked="" type="checkbox"/>		

SECTION D. Unique project identification

D.1. GPS-coordinates of project location

[See Toolkit 1.6]

	Coordinates
Latitude	36° 50' 04" N
Longitude	110° 44' 10" W

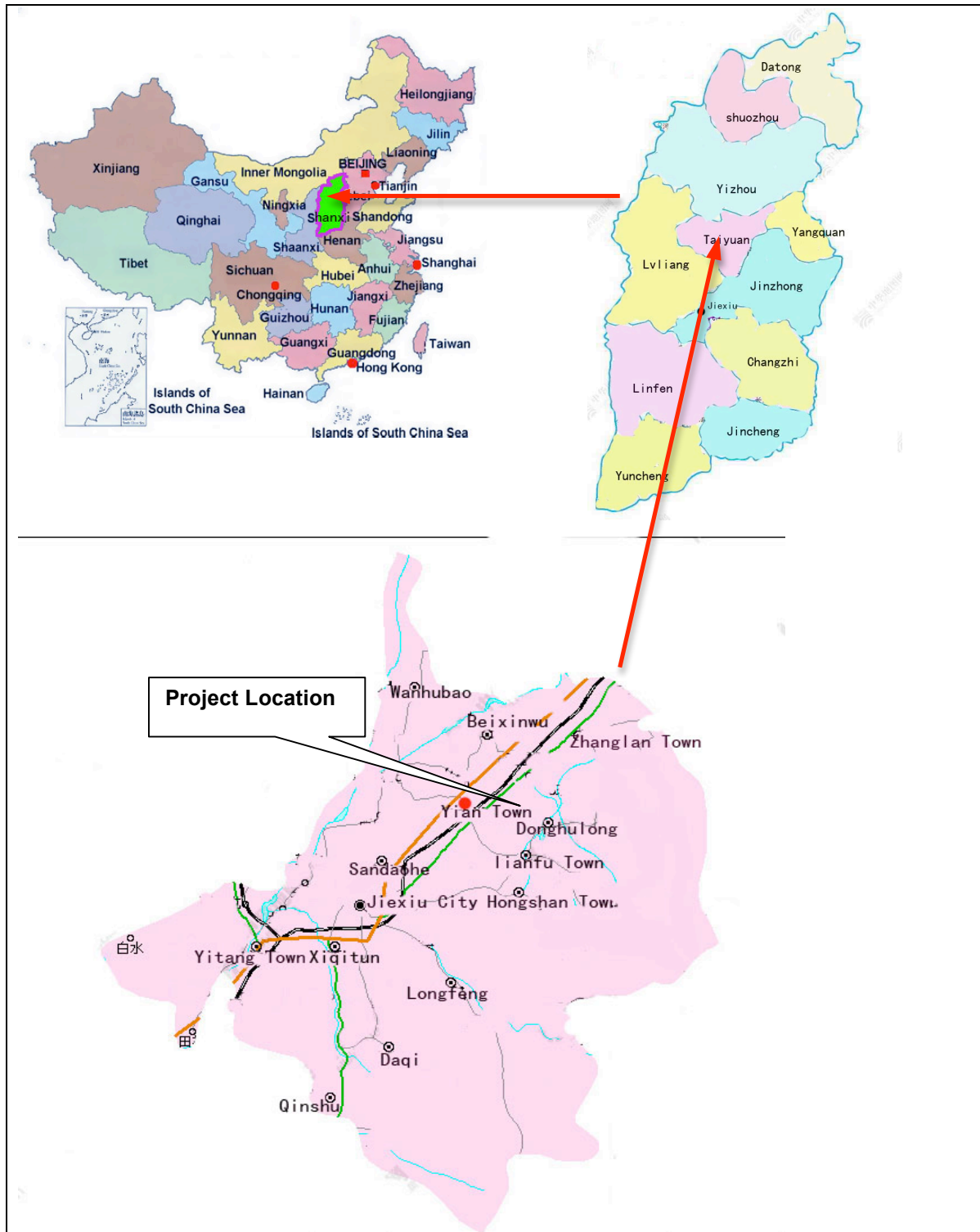


S

Explain given coordinates

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D.2. Map



SECTION E. Outcome stakeholder consultation process

E.1. Assessment of stakeholder comments

See LSC report

E.2. Stakeholder Feedback Round

Please describe report how the feedback round was organised, what the outcomes were and how you followed up on the feedback.

See LSC report

SECTION F. Outcome Sustainability assessment

F.1. 'Do no harm' Assessment

[See Toolkit 2.4.1 and Toolkit Annex H]

Safeguarding principles	Description of relevance to my project	Assessment of my project risks breaching it (low/medium/high)	Mitigation measure
1 Environmental protection	The village is only 300m from the plant area, in the construction period, it would be apparently affected by the dust pollution	Low	The earth and stone as well as construction material should be piled in low-lying place and covered to prevent the generation of dust. The transportation truck should be well organized and covered, the road should be often

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			sprayed by water and green plants should be planted to prevent and block the dust generation
2 Environmental protection	The village is only 300m from the plant area, in the construction period, it would be apparently affected by the noise pollution	Low	The project entity should control the noise from the source. They should purchase facilities with high performance and low noise to mitigate the noise.
Etc.			
Additional relevant critical issues for my project type	Description of relevance to my project	Assessment of relevance to my project (low/medium/high)	Mitigation measure
1			
2			
Etc.			

F.2. Sustainable Development matrix

[See Toolkit 2.4.2 and Toolkit Annex I]

Insert table in section C3 from your Stakeholder Consultation report (Sustainable Development matrix).

Indicator	Mitigation measure	Relevance to achieving MDG	Chosen parameter and explanation	Final score
Gold Standard indicators of sustainable development.	If relevant copy mitigation measure from "do no harm" – table, or include mitigation measure used to neutralise a score of '–'	Check www.undp.or/mdg and www.mdgmonitor.org Describe how your indicator is related to local MDG goals	Defined by project developer	Negative impact: score '–' in case negative impact is not fully mitigated score 0 in case impact is planned to be fully mitigated No change in impact: score 0 Positive impact: score '+'
Air quality			Parameter: Dust, SO ₂ and NO _x emission. Waste gas used in the project is cleaned (by removing the dust and sulphur) before combustion and exhausted flue gas will be cleaned again and then released through a 100m high chimney. Without project activity, the waste gas is only cleaned once and then flared and emitted to the atmosphere. Therefore, with project activity, quantities of dust, SO ₂ and NO _x contained in the flue gas will be lesser than in the situation without project activity. This will definitely improve the local air quality; we thus score this indicator positively.	+
Water quality and quantity			Parameter: Water consumption (in m ³). Compared with the same capacity of power plant, the generator units of the project activity	0

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			incorporate direct air cooling equipment, which could save water by 60~70%. In addition, all the discharge water is collected and treated together in the recovery pool of the plant, living sewage is first treated in the cesspool and then be drained into the waste water system of the company, finally be recycled. Therefore, because there is no significant impact on the water quantity and quality, we score this indicator neutral.	
Soil condition		In Shanxi province, most of the power and heat are generated by burning coal, it would generate big amount of slag. The usage of waste gas to cogenerate power and heat could totally avoid the generation of slag. The project could promote environment in local area.	<u>Parameter:</u> Coal consumption in plants with the same power capacity In absence of the project, Antai uses the electricity from the power grid. In North China Power Grid, most of the electricity is generated by coal; in this process waste solid is generated. But a waste gas recovery based power station would not have any significant solid waste. This indicator has a positive impact but due to the capacity of project activity is not a very big size, we score it neutral as the impact is only minor.	0
Other pollutants			<u>Parameter:</u> Noise levels There is no significant difference compared with baseline scenario for other pollutants.	0
Biodiversity			<u>Parameter:</u> Number of affected plants and animals As compared to the baseline, no significant change in biodiversity is expected since the project only takes place within the plant boundary.	0
Quality of employment		China's MDGs recognize that quality of employment in science technology and use of advanced technology to	<u>Parameter:</u> HR data and relevant certificates. Compared with the baseline scenario, the	0

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		increase productivity efficiency should be improved, as well as work conditions for the employees.	labour conditions such as job-related health and safety will be well changed. Project managers and operators in the plant will work in a more comfortable procedure room, considering health and safety, and the project will also provide long-term jobs. Although the quality of employment has improved, the impact was not considered substantial and thus the indicator was scored with '0'	
Livelihood of the poor			<u>Parameter:</u> Access to better health care services As compared with the baseline, no significant change is expected.	0
Access to affordable and clean energy services		Energy generation in Shanxi province is extremely depending on fossil fuel, there is only a small percentage of clean energy, such as hydro power plants, is very limited (the proportion of clean energy is 0%, 0.81%, 0.75%, and 0.51% for 2003, 2004, 2005, and 2006, respectively). This project can encourage local enterprises to adopt clean energy which is in line with the MDGs of China.	<u>Parameters:</u> Traditional fuel for energy generation and Waste gas used for power generation or electricity supply by waste gas recovery The project activity alleviates the shortage of electricity supply. Compared with the baseline, electricity supplied by this project is usage of affordable and clean energy, not of traditional fossil fuel.	+
Human and institutional capacity		MDG in China targets to increase the education percentage and improve education for more women. This project are in compliance with above targets.	<u>Parameters:</u> Employees' academic or technical title and positions for women There is less dependence on heavy male labour force, the project provides more positions for women compared with baseline which is a normal power plant. This indicator has a positive impact, we score it neutral as the impact is only very minor	0
Quantitative employment and		Supply enough work positions can relieve the gap between the poor and wealthy. The project activity	<u>Parameter:</u> HR data (number of jobs, income of the employees)	+

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income generation		generates employment opportunities during both the project's construction and operation period. This will contribute to sustainable development in local area.	The project has created about 154 employment opportunities for the local community, which all received incomes from the project. Compared with the baseline, this indicator has a significant impact and is thus scored positively.	
Balance of payments and investment			Parameter: Balance of payments Compared with baseline scenario, there is no significant difference in terms of balance of payments and investment.	0
Technology transfer and technological self-reliance			Parameter: Number of workshops organized Implementation of the project does not involve technology transfer. So we score the indicator neutral.	0
Justification choices, data source and provision of references				
Air quality	EIA page 138 and 142 approved by local government; FSR page 41 approved by local government.			
Water quality and quantity	EIA page 139 approved by local government; FSR page 41~42 approved by local government; http://www.mwr.gov.cn/xwps/slyw/20040412000000032624.aspx http://www.xinhuanet.com/chinanews/2005-12/14/content_5817839.htm http://www.jschina.com.cn/gb/jschina/chsj/zl/node37077/node37078/node37083/userobject1ai2055581.html			
Soil condition	EIA page 139 and 141 approved by local government.			
Other pollutants	EIA page 141 approved by local government; FSR page 42 approved by local government.			
Biodiversity	EIA page 232 approved by local government.			
Quality of employment	FSR 32-34 approved by local government.			
Livelihood of the poor	The project will generate additional income to people involved. But compared to the local population, it is a small amount. So there is no significant change expected.			
Access to affordable and clean energy services	China power website News: http://www.chinapower.com.cn/newsarticle/1013/new1013182.asp			
Human and institutional capacity	Training plan from project owner.			
Quantitative employment and	FSR page 46~47 and 51 approved by local government.			

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income generation	
Balance of payments and investment	Equipments purchase agreement.
Technology transfer and technological self-reliance	Equipments purchase agreement;

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SECTION G. Sustainability Monitoring Plan

[See Toolkit 2.4.3 and Toolkit Annex I]

Copy Table for each indicator

No		1
Indicator		Air quality
Mitigation measure		N/A
Repeat for each parameter		
Chosen parameter		Emission Concentration of dust and SO2 contained in the flue gas
Current situation of parameter		Dust 10mg/m ³ ; SO2 200mg/m ³
Future target for parameter		Dust 4.05mg/m ³ ; SO2 12.15mg/m ³
Way of monitoring	How	Local EPA will monitor responsible parameters and issue report
	When	Once per three months
	By who	Local EPA

No		2
Indicator		Access to affordable and clean energy services
Mitigation measure		N/A
<i>Repeat for each parameter</i>		
Chosen parameter		Net electricity generation by project activity
Current situation of parameter		0
Future target for parameter		264000MWh
Way of monitoring	How	Project owner will monitor the net electricity generation according to the electricity generation meter
	When	Continuous
	By who	Verified by DOE

No		3
Indicator		Quantitative employment and income generation
Mitigation measure		N/A
<i>Repeat for each parameter</i>		
Chosen parameter		Quantitative employment
Current situation of parameter		0
Future target for parameter		154
Way of monitoring	How	Accounting report by human resource office of the plant. The number of people engaged, the gender, the responsibilities of them and the training they take will all be covered in the report.
	When	Once a year
	By who	Verified by DOE

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Additional remarks monitoring

SECTION H. Additionality and conservativeness



This section is only applicable if the section on additionality and/or your choice of baseline does not follow Gold Standard guidance

H.1. Additionality

[See PDD section B.5]

H.2. Conservativeness

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ANNEX 1 ODA declarations

Project financing for this project activity will not use Official Development Assistance (ODA) Funds as defined in the Gold Standard Manual for Project Developers. There are no loans or grants being provided by International Finance Institutions, which include ODA.