Gold Standard Passport

CONTENTS

SECTION A. Project Title

Hebei Xinpu Cement Co. Ltd. Waste heat to Energy Project

SECTION B. Project description

This Waste Heat Recovery and Utilisation for power generation project is developed by Hebei Xinpu Cement Co. Ltd. (hereafter referred to as Xinpu). The project activity is a waste heat utilisation power generation project at the clinker production line at the cement factory of Xinpu, Chengdi Village, Lincheng Town, Lincheng County, Hebei Province, China.

The project activity at Xinpu, which has a production capacity of 2,500 tons clinker/day, will utilize waste heat from the cement production line for power generation. In the past, the waste heat from the cement production line was emitted to the atmosphere. The project activity will utilize the waste heat to generate electric power, without affecting the heat recycling utilization in the production process. To effectively utilize the waste heat carried by the exit gases from the Pre-heater (PH) and the Air Quenching Chamber (AQC) in the cement line, the project developer plans to construct 6 MW captive power station based purely on waste heat recovery from the 2,500t/d clinker line.

Electricity generated by the 6 MW captive power plants will be consumed by Xinpu in order to substitute part of the electricity purchased from the North China Power Grid for the cement production process. This will lead to CO2 emission reductions attributed to reduced electricity consumption from fossil fuel-based power plants connected to the North China Power Grid.

SECTION C. Proof of project eligibility

C.1. Scale of the Project

Please tick where applicable:

Project Type	Large	Small
		☑
		
		
		
		

	

C.2. Host Country

People's Republic of China

C.3. Project Type

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?	☑	

Please specify your project type:

Scope 1: Energy industries (renewable-/non-renewable sources)
Scope 4: Manufacturing industries

Pre Announcement	Yes	No
Was your project previously announced?		☑
Explain your statement on pre announcement This project has not been previously announced.		

C.4. Greenhouse gas

Greenhouse Gas	
Carbon dioxide	☑
Methane	
Nitrous oxide	

C.5. Project Registration Type

Project Registration Type	
Regular	☑

Pre-feasibility assessment	Retro-active projects (T.2.5.1)	Preliminary evaluation (T.2.5.2)	Rejected by UNFCCC (T2.5.3)

SECTION D. Unique project identification

D.1. GPS-coordinates of project location

	Coordinates
Latitude	37° 31' 3" N
Longitude	114° 30' 14" E

Explain given coordinates

D.2. Map


INNER MONGOLIA
AUTONOMOUS REGION
Kangbao
HEBEI
Zhangjiakou
Pingquan
Chengde
LIAONING
Yuxian
BEIJING
Tangshan
Baoding
Renqiu
BO HAI
YELLOW SEA
Cangzhou
Shijiazhuang
Hengshui
SHANXI
Xingtai
Handan
赞皇县
溪河
白草坪水库
高邑县
宁晋县
杨照河
Lincheng
Town
石
安
高
速
柏乡县
北澧河
隆尧县
内邱县
滏阳河
野沟门水库
白马河
G107
顺水河
任县
东川口水库
Xingtai
City
邢台市
洛河
朱庄水库
南和县
沙河
朱石岭水库
Project Location

SECTION E. Outcome stakeholder consultation process

E.1. Assessment of stakeholder comments

See Local Stakeholder Consultation Report B.5.

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.

SECTION F. Outcome Sustainability assessment

F.1. 'Do no harm' Assessment

Impacts from the project will be primarily positive, with no negative impacts on sustainable development. Therefore, there are no safeguarding principles and no need for mitigation measures.

Safeguarding principles	**Description of relevance to my project**	**Assessment of my project risks breaching it (low/medium/high)**	**Mitigation measure**
1			
2			
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

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		Per China's MDGs, economic, environmental and socially harmonious development should be promoted simultaneously. With the cement industry and WHR project development, the environment, including the air quality for surrounding residents should not be negatively influenced. If the project improves the air quality, it would be better for local sustainable development.	Parameter: dust concentration. Besides GHG emission reductions, implementation of the project also has other advantages over baseline scenario in terms of impacts on air quality. In the baseline scenario, the exhaust gas was only purified before emission. In this project, Electrostatic precipitators and bag filters would be separately installed before entry to boilers and also installed after the PH and AQC boilers to purify the exhaust gas twice, raising the efficiency of dust removal.	+
Water quality and quantity			There is no change to the water quality and quantity by the project, compared with the baseline scenario. The waste water from this project contains no toxic or poisonous materials, and is recycled to supply water to the cooling tower. Therefore, we score it neutral.	0
Soil condition			The participants were correct that the project would produce no solid waste. Additionally, in the absence of the project activity, the cement production factory uses electricity from the North China Power Grid where	0

			most of the electricity is generated by coal; which produces solid waste. By displacing the use of power from the grid, the project reduces solid waste to some extent and has a positive impact on the soil condition. However, the project is too small to have a significant impact on this, so we score it neutral.	
Other pollutants			There are no other environmental pollutants and no significant difference between the project baseline and the project activity.	0
Biodiversity			As compared to the baseline, no significant change in biodiversity is expected since the project only takes place within the plant boundary. In fact, there will be no change to biodiversity within or around the Xinpu boundary, so we score it neutral.	0
Quality of employment		China's MDGs recognize that quality of employment in scientific technology and use of advanced technology to increase productivity efficiency should be improved, as well as work conditions for the employees. The Xinpu project invests a large amount of money in the project to enhance the quality of employment.	Parameter: HR data and relevant certificates. Compared with the baseline scenario, the 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. Hence, there is a significant advance compared with the baseline.	+
Livelihood of the poor			Lincheng County of Hebei Province is a nation level poverty district. The average income in Lincheng is lower than the national average low income standard. The project will increase annual income for some	0

			Xinpu employees, but with no significant direct improvement for the livelihood of the poor. Even though it can be assumed that there is an indirect positive impact through employment generation, it is not possible to quantify the impact; hence a neutral score is applied.	
Access to affordable and clean energy services		In the face of global environmental problems and energy shortages, China promotes the usage of clean energy and clean production. In Hebei Province, especially Xingtai, the North Power Grid is mainly based on coal fired plants with little new and renewable energy power generation.	Parameter: Waste heat used for power generation or electricity supply by WHR. The WHR power generation will alleviate local electricity supply shortage, and improve the waste energy utilization. It improves access to clean energy services and reduces dependency on polluting fossil fuel resources leading to more sustainable energy generation in Hebei Province, China.	+
Human and institutional capacity			There is no significant impact on this indicator through the project activity.	0
Quantitative employment and income generation		Supplying sufficient employment for the work force is a priority for China, especially during a time of worldwide economic crisis, as it can improve the livelihood of people and maintain social stability and unity. At the same time, the additional income generation will stimulate consumption and the local economy.	Parameter: HR data (including number of jobs and income from employment) The project activity plans to generate more than 16 positions during the project's construction and operation period. The preliminary design and feasibility study of the project also involved much manpower. Project participants will monitor and record the number of jobs generated by construction and operation of the project.	+
Balance of payments and investment			All equipment for the proposed project is purchased from domestic manufactures. No import or export is involved in the project activity. The power generated by the project activity will displace	0

			mainly electricity produced by coal-fired power plants. Given the fact that most coal resources are domestic, the renewable energy generation by the project will not have a substantial impact on balance of payments. Hence, compared with baseline scenario there is no significant difference in terms of balance of payments.	
Technology transfer and technological self-reliance			Most of the technology applied in the project is domestic. However, most of the cement production plants in China are still running with conventional technology and the waste heat is emitted into the atmosphere without waste heat recovery. The success of the project surely will encourage more clean production practices in cement production plants in China.	+

Justification choices, data source and provision of references	
Air quality	EIA (Environment impact Assessment) ; GB4915-2004.
Water quality and quantity	EIA (Environment impact Assessment); GB/T18920-2002.
Soil condition	EIA (Environment impact Assessment) approved by local government.
Other pollutants	EIA (Environment Impact Assessment) approved by local government.
Biodiversity	FSR (Feasibility Study Report) approved by local government
Quality of employment	FSR (Feasibility Study Report) and HR data from Xinpu. News from China 2008 Cement Industry Human Resources Conference: http://zt.snsqw.com/renli/
Livelihood of the poor	National and district level poverty data. http://baike.baidu.com/view/1597474.htm
Access to affordable and clean energy services	Based on authority system. From newspaper “China high technology industry” as follows: http://paper.chinahightech.com.cn/page/61/2008-06-16/C6/85021213369108539.pdf
Human and institutional capacity	HR data analysis.
Quantitative employment and income generation	Based on FSR (Feasibility Study Report) and analysis of Xinpu HR materials.
Balance of payments and investment	Based on equipment purchase contract
Technology transfer and technological	FSR (Feasibility Study Report) approved by local government and EIA (Environment impact Assessment).

self-reliance	

SECTION G. Sustainability Monitoring Plan

Copy Table for each indicator

No		1
Indicator		Air quality
Mitigation measure		N/A as indicator scores positive
Repeat for each parameter		
Chosen parameter		Emission Concentration of dust
Current situation of parameter		Average 300 mg/m^3
Future target for parameter		less than 50mg/m^3
Way of monitoring	How	Purchase monitoring devices to monitor dust in the outlet of the stack. The dust construction will be monitored continuously and recorded by the project owner
	When	Once per verification period
	By who	Monitored by Xinpu and Verified by DOE

No		2
Indicator		Quality of employment
Mitigation measure		N/A as indicator scores positive
Repeat for each parameter		
Chosen parameter		Certificates from HR
Current situation of parameter		Currently there is a limited number of employees with the same level of qualification as required for operation of the project activity
Future target for parameter		Additional education for the employees
Way of monitoring	How	Monitoring of Xinpu HR data and relevant certificates
	When	Once per verification period
	By who	Monitored by Xinpu and Verified by DOE

No		3
Indicator		Access to affordable and clean energy services
Mitigation measure		N/A
Repeat for each parameter		
Chosen parameter		Waste heat used for power generation or Electricity supply by this project
Current situation of parameter		Electricity is taken from the mainly coal supplied national grid
Future target for parameter		34350MWh (expected net electricity supply)
Way of monitoring	How	The electricity will be monitored by electric metres; and the waste heat used for power generation will be calculated by monitoring parameters of steam flow, temperature and pressure.
	When	Once per verification period
	By who	Monitored by Xinpu and Verified by DOE

No		4
Indicator		Quantitative employment and income generation
Mitigation measure		N/A
Repeat for each parameter		
Chosen parameter		HR data
Current situation of parameter		40 current employees for cement line
Future target for parameter		16 (Employees) 56 total (including the previous and new employees for the proposed project)
Way of monitoring	How	Accounting report by human resource office of the plant. The number of people engaged, their gender, responsibilities and the training they take will all be covered in the report.
	When	Once a year
	By who	Monitored by Xinpu and Verified by DOE

No		5
Indicator		Technology Transfer and technological self-reliance
Mitigation measure		N/A as indicator scores positive
Repeat for each parameter		
Chosen parameter		Number of plants adopting similar technological approach
Current situation of parameter		2 current plants in Xingtai with similar technology
Future target for parameter		Increase in number of plants adopting similar technological approach
Way of monitoring	How	Provide evidence such as link to new CDM projects, official market statistics, confirmation from appropriate industrial associations, research institutes, or news articles, which demonstrate that there is an increasing number of such projects in China
	When	Once per verification period
	By who	Project Participant (Verified by DOE)

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

H.2. Conservativeness

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.

Annex document copies will be submitted later when they are available.