



南宁狮座建材有限公司

To: The Executive Board of the Clean Development Mechanism
UNFCCC Secretariat
Martin-Luther-King-Strasse 8
D-53153 Bonn
Germany

13 February, 2009

Response to the request for review for the CDM project activity "Nanning Shizuo Non-Carbonated Raw Material for Cement Production Renovation Project" (Ref. 2143)

Dear Members of the CDM Executive Board,

We were informed that our project "Nanning Shizuo Non-Carbonated Raw Material for Cement Production Renovation Project (Ref. 2143)" was requested for review by CDM Executive Board. As required by the Board, we would like to answer the questions and clarify the issues raised by the requests for review, as follows.

1. The DOE shall further clarify how it has validated the financial analysis in accordance with EB 38, paragraph 54 guidance, in particular, the investment requirements for raw material switching, the cost of CCR applied, and the cost savings in energy consumption and material transportations due to the project activity.

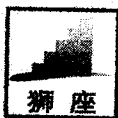
Response: The proposed project is a renovation project based on the original cement plant with clinker production from traditional raw materials. The values for the financial analysis in PDD of this project were from Feasibility Study Report (FSR). And the project owner made the investment decision on based on FSR. It is consistent with the guidance of pare 54 in EB38 report.

The investment requirements for raw materials switching are mainly composed of four parts, including equipment procurement investment, installation engineering investment, construction investment and other investment as follows.

Date Unit: RMB10,000

No.	Item	Value
1.	Fixed assessment investment	2905.10
1.1	Equipment procurement investment	1419.44
1.2	Installation engineering investment	271.13
1.3	Construction investment	829.33
1.4	Other investment	385.20
2	Fluid capital	34.49
Total	Total investment	2939.59

Date source: FSR-Table 6.1-3



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According to the above table, the investment requirement for raw material switching is RMB 29.3959 million.

With regard to the cost of CCR applied due to the project activity, the detailed cost data of the project activity are all selected from FSR and listed as follows.

Date Unit: RMB10,000

Project scenario (carbide sludge scenario)		
No.	Item	Value
1	Raw Material Purchase	1940.03
1.1	Carbide slag	629.29
1.2	Limestone	102.69
1.3	Other materials	1208.05
2	Fuel and Power	5498.02
2.1	Fuel cost	2800.85
2.2	Electricity cost	2697.17
3	Wages and Welfare	718.20
4	Maintenance Cost	868.30
5	Other cost	917.19
Total O&M cost		9941.75

Date source: FSR-Annex Table 1-1

Date Unit: RMB10,000

Baseline scenario (limestone scenario)		
No.	Item	Value
1	Raw Material Purchase	1686.40
1.1	Carbide slag	0
1.2	Limestone	814.10
1.3	Other materials	872.30
2	Fuel and Power	6525.40
2.1	Fuel cost	3621.48
2.2	Electricity cost	2903.92
3	Wages and Welfare	718.20
4	Maintenance Cost	350.60
5	Other cost	190.73
Total O&M cost		9471.33

Date source: FSR-Annex Table 1-2

The financial analysis for the project activity is based on the incremental investment, then according to the above table, the cost of CCR applied due to the project activity is RMB 4,704,200 (= 99,417,500 - 94,713,300).

The cost in energy consumption and material transportations due to the project activity is calculated as follows.



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Project scenario (carbide sludge scenario)				
Item	Unit Price	Consumption per unit cement	Energy cost per unit cement	Annual energy cost
	A	B	C=A*B	D=C*473400 ²
Bituminous coal	RMB0.47/Kg ¹	126 kg/t-cement ¹	RMB59.16/t-cement	RMB28,008,500
Grid power	RMB0.56/Kwh ¹	101.74 Kwh/t-cement ¹	RMB56.97 t-cement	RMB26,971,700
Total energy cost	RMB54,980,200			

1. Data source: FSR-Annex table 1-1, 1-2 and sector 6.2.4.1.
2. The cement annual production in Nanning Shizuo is 473400t. The data is from FSR-Annex table 1-1, 1-2 and sector 6.2.4.1.

Baseline scenario (limestone scenario)				
Item	Unit Price	Consumption per unit cement	Energy cost per unit cement	Annual energy cost
	A	B	C=A*B	D=C*473400 ²
Bituminous coal	RMB0.47/Kg ¹	162.92kg /t-cement ¹	RMB76.50 /t-cement	RMB 36,214,800
Grid power	RMB0.56/Kwh ¹	109.54Kwh/ t-cement ¹	RMB61.34/ t-cement	RMB 29,039,200
Total energy cost	RMB65,254,000			

1. Data source: FSR-Annex table 1-1, 1-2 and 6.2.4.1 sector.
2. The cement annual production in Nanning Shizuo is 473400t. The data is from FSR-Annex table 1-1, 1-2 and sector 6.2.4.1.

From the above table, it can be seen that the cost savings in energy consumption is RMB 10,273,800 (= 65,254,000 - 54,980,200) every year.

The detailed calculation processes of all above mentioned parameters are shown in the attached spreadsheet for validation.

With regard to the material transportations due to the project activity, besides carbide slag, the transportation fee of other raw materials is already included in cost of raw material purchase, only the cost of carbide slag transportation, i.e. 20 RMB/t, is additional due to the project activity. The calculation is according to corresponding local regulation¹ (Guijianguan, No.51 [2006]) as follows.

¹ <http://www.nngczj.com/news00.asp?id=2168>



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No.	Item	Cost of 1 m ³ CCR transportation within 1 km for every truck with 10 t load (RMB)	Cost of 1 m ³ CCR transportation with every increased 1 km for every truck with 10 t load (RMB)
1	Labor cost	0.176	0
2	Material cost	0	0
3	Mechanical cost	15.384	2.088
3.1	Tracked-hydraulic excavator	3.701	0
3.2	Tracked-hydraulic bulldozer	3.212	0
3.3	Dump truck	8.471	2.088
4	Management fee	1.283	0.172
5	Profit	0.398	0.052
Total		17.23	2.31

The distance between project site and the carbide slag source is 23 km², then the transportation fee of 1 m³ carbide slag transported to the project site is 68.1 RMB (= 17.23*1 + 2.31*(23-1)). Besides this, other costs i.e., measurement item cost (2.68 RMB), engineering quota measurement cost (0.03 RMB), others (2.47 RMB), injury insurance (0.11 RMB) and tax (2.72 RMB), are also included in the cost calculation of carbide slag transportation. Therefore the total cost of 1 m³ carbide slag transported to the project site is 76.11 RMB (= 68.1 + 2.68 + 0.03 + 2.47 + 0.11 + 2.72). Considering that the density of carbide slag is about 1.82 t/m³, hence, the cost of carbide slag transportation is estimated as 41.82 RMB/t (=76.11/1.82). Considering that the carbide slag consumed by the project activity will not only mitigate the environmental pollution but also decrease the dumping fee for the carbide slag provider (Nanning Chemical Industry Co., Ltd.), then the carbide slag provider agree to cover some transportation expenses according to the agreement³ between the project owner and carbide slag provider. Therefore the final cost of carbide slag transportation is 20 RMB/t.

2. The DOE is requested to further clarify how the elimination of Alternative baseline scenario 3 – 100% substitution of traditional raw materials, limestone and clay, is validated and confirmed.

Response: As described in PDD, alternative scenario C i.e., a scenario in which traditional raw materials, limestone and clay, are 100% substituted by noncarbonated calcium source, is unrealistic and should be eliminated from the following considerations. Due to the industry structure of Guangxi Zhuangzu Autonomous Region (GZAR), there is no other comparable amount of non-carbonated source than carbide slag which can be used in the proposed project^{4,5}. So, other non-carbonated material option is unrealistic and can be not be taken into account any further. On the other hand, all the

² FSR-4.1.1 sector

³ Proof of the price for carbide slag transportation (it has been provided to DOE for validation)

⁴ <http://www.nh.com.cn/Cn/about.Asp>

⁵ http://msx.nanning.gov.cn/4832/2008_12_26/4832_308268_1230278191531.html



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carbide slag used for clinker production in the proposed project can be only from an adjacent existing PVC production line as it is the only one carbide slag source in GZAR⁶, other carbide slag sources out of the province is obviously too much far away (at least more than 250 km) from the project site. The only PVC production line in GZAR is owned by Nanning Chemical Industry Co., Ltd. Each year, it produces 160,000 tonnes PVC and as the same time, 320,000 tonnes carbide slag is generated as byproduct. However, for the proposed project activity with daily output of 1200 tonnes clinker, at least 370,000 tonnes carbide slag is required for the project with 100% substitution of traditional raw materials⁷, hence the amount of total carbide slag generated is not adequate to completely substitute all traditional raw materials (limestone and clay) for clinker production of the proposed project. Therefore the proposed activity is designed to partially replace limestone as raw materials for cement production. Hence, 100% substitution of traditional raw materials (Alternative C) is not realistic and reasonable for the proposed project according to the above explanation.

With the above response, clarification and explanation, we wish that the concerns raised by CDM Executive have been fully and adequately addressed, and we sincerely hope that the CDM Executive Board would approve this project for registration.

Best regards

Yours sincerely,

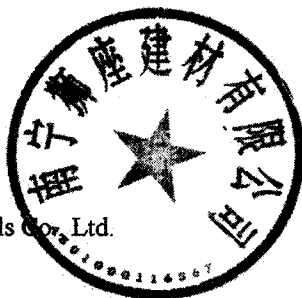
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Focal Point of Project Participants

Director of Climate Change & CDM Working Unit

Foreign Economic Cooperation Office (FECO)

Ministry of Environmental Protection (MEP)

⁶ Proof of the investigation results on carbide slag source in GZAR (it has been provided to DOE for validation)

⁷ FSR-Talbe 2.2-11