

March 19, 2008

**Re: Request for review of the request for issuance of CERs from the CDM project activity "Lawley Fuel Switch Project, South Africa" (0177) for the monitoring period 01 Jan 2006 – 31 Dec 2006**

Dear CDM Executive Board Members,

The request for issuance of CERs for the project "Lawley Fuel Switch Project, South Africa" (0177) **for the monitoring period 01 Jan 2006 – 31 Dec 2006** is under consideration for review because three members of the Executive Board have submitted requests for reviews.

We provide you here with a detailed answer in response to the concerns expressed within the Requests for Review. Based on both substantive as well as formal arguments, we see no ground for the allegation of incompetence.

**Requests for Review dated 5 & 6 March 2008:**

"The plant expanded the annual brick output from 73 million to 92 million in this monitoring period and the PP claimed the emission reductions only for the baseline output of 73 million bricks by using a production conversion factor. However, the methodology requires that the project activity does not increase the capacity of final outputs.

1. Further clarification is required on how the DOE verified that the monitoring report is in line with the methodology and how it verified the conservativeness of the project emissions associated with this approach.
2. Substantiated clarification of the PP and DOE is required on the impact of the higher production rate on the conclusions on the additionality of the project activity, if this higher production rate was assumed at the moment of registration of the project activity".

**Project Participants' response regarding item 1:**

*Summary*

We kindly ask the Executive Board and its review team to take note of the fact that the issue of an increase in market demand for bricks in South Africa and the increased output has been addressed in the validated and registered PDD. The increase of brick output does not affect the maximum final capacity of the fuel switch project which remains unchanged. The PPs have chosen a conservative approach by calculating the emission reductions generated by the fuel switch project activity based on the initial output and not the actual output for which no emission reductions are being claimed. For your easy references we summarize the reason why AM0008 has been applied in a valid and correct manner.

*AM0008 and the Maximum Output of the Facility*

- The capacity of the facility is ultimately linked to the kiln size, limiting output to 98 million bricks per annum (gross). This has remained constant before and after the fuel switch.
- The actual output fluctuates depending on market demand and is catered for through adjustments of the number of drying chambers, number of shifts and workflow optimization.
- Due to market demand the output of the brick factory did increase from 73 million bricks to 80 million bricks per annum (monitoring period 2005) and 92 million bricks

per annum (monitoring period 2006). The reason for such increased production is increased market demand for bricks. It cannot be related to the fuel switch project activity.

- The number of drying chambers increased. The drying chambers only utilize waste heat from the kilns, no supplementary heating is used. The drying chambers do not have gas burners.

All these items were addressed in the validated and registered PDD.

#### *Conservativeness of the Emission Reduction Claim*

- The PPs have chosen to limit the claim for emission reductions to 73 million brick per annum cap. This limitation expressed the voluntarily conservative approach chosen by the PPs. It is not required by AM0008.
- Theoretically, if the methodology was still available, the actual firing capacity of the facility could be taken as the cap and the emission reduction calculated accordingly. This would allow the emission reduction associated with the fuel switch for the current volume of 80 [92] million bricks to be claimed by the project participant. The emission reduction e.g. associated with the output of 92 million bricks would be 23 900 ton CO<sub>2</sub> equivalent, therefore higher than under the 73 million brick cap; also, the use of a monthly (instead of yearly) production conversion factor is a further conservative approach.
- The approach taken is providing a conservative volume of real (conversion has been done), measurable (gas flow rates and coal consumption based on actual values) and long term emission reduction (no potential for reversal of emission reductions).

#### *Reference to the validated and registered PDD*

This approach has been laid out in the validated and registered PDD and confirmed in the process of validating the project activity. For your reference, please find below the relevant sections copied from the validated and registered PDD (p17):

*“The maximum potential firing capacity of the Lawley 50 chamber Transverse arch (TVA) kiln, before and after the fuel switch was 98 million bricks/annum (Gross output).*

*The constraint to increasing the then production output of 72 million bricks/annum (Gross), before and after the fuel switch, was the then installed drying capacity of the plant comprising some 19 chamber dryers.*

*The construction sector in South Africa is currently in the midst of a boom period with demand for clay bricks escalating.*

*Therefore Corobrik decided to increase the output of the Lawley plant in order to meet this demand. This was achieved by increasing the drying capacity of the plant by 6 more dryers. The new dryers were commissioned 6 months after the fuel switch (June 2005). The overall capacity of the plant remained unchanged since the TVA kiln remained unchanged. Due to the increase in drying capacity of the plant the annual brick output was increased from 73 million/annum to 92 million/annum. The increased output was only related to increased demand in the market and not to the fuel source used and could have been met by Lawley still operating on coal.*

*It is important to note that the baseline used is static (73 million/annum) and does not increase over time. In the project case only the amount of fuel used and therefore the emissions relating to the production of 73 million/annum and not 92million/annum will be used. The static baseline is in line with the overall conservative approach followed in the application of the methodology.”*

## Project Participants' response regarding item 2

### Summary

The additionality of the fuel switch project activity has been assessed in the process of validation and confirmed with the registration of the fuel switch project activity under the CDM. While we consider it outside of the scope of the Executive Board to review and re-open the discussion of validation requirements at the point of CER issuance, we are happy to summarize the detailed additionality requirement as included in the validated and registered PDD.

We are further confirming that the impact of the production rate does not change the additionality of the fuel switch project. The NPV of the fuel switch project remains negative (and becomes even worse) with the higher production rate.

### Additionality of the Project

The additionality as required per AM0008 is calculated and summarized in the table below, for the following three scenarios:

- As per the registered fuel switch project capped on the production of 73 million bricks;
- A hypothetical scenario based on all the actual brick production for the year 2006 (92 million bricks); and
- A hypothetical scenario based on the maximum capacity of the facility of 98 million bricks.

**Table 1: NPV calculations**

Brick production per annum	73 million	92 million	98 million (maximum capacity)
NPV without CER income	-17.7 million ZAR	-25.7 million ZAR	-28.2million ZAR
Estimate CER volumes (rounded values)	19 000	23 900	25 500
NPV with CER income	-15.2 million ZAR*	-20.4 million ZAR	-22.6 million ZAR

\* The PDD states a NPV with the income from CERs of -2.3 million ZAR, this was however updated to actual CER as per the monitoring report and current exchange rates

The impact of the production rate does not change the conclusion regarding additionality of the fuel switch project, as required by AM0008, as shown in the table above; a higher production output does not improve the NPV of the fuel switch project due to higher gas consumption (which is more expensive than coal). The NPV remains negative as natural gas costs was ZAR 21.5 /GJ and coal cost ZAR 3.74/GJ as stated in the PDD. Using the current costs of natural gas ZAR 33.4 /GJ and coal cost ZAR 6.21/GJ the NPV remain negative.

In terms of common practice, South Africa has large reserves of coal, and coal has been, and is, the cheapest energy source for industrial facilities. There is no legislation or policies restricting the use of coal in South Africa, and, in addition, there are no incentives to promote the use of natural gas in any sector. Especially in the brick industry coal is the dominant energy sources.

**Final Conclusion**

Based on the above substantive arguments, we see no grounds for the allegation of incompetence and we look forward to the issuance of CERs for the fuel switch project activity.

Yours sincerely,

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