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Att: CDM Executive Board

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Your ref.:	Our ref.:	Date:
CDM Ref 0834	MLEH/KCHA	29 May 2007

Response to request for review
"Egyptian Bricks Factory GHG Reduction Project" (0834)

Dear Members of the CDM Executive Board,

We refer to the request for review raised by the one of the Parties involved concerning DNV's request for registration of the "Egyptian Bricks Factory GHG Reduction Project" (0834) and would like to provide the following clarification for your perusal and review.

The point raised and our response to the same is indicated below.

The contracts between the project developer and the brick factory owners as well as the contract with Egyptian Town Gas (for gas connections) have not been finalised yet.

DNV Response:

The project activity involves the switching of fuel from mazot (fuel oil) to natural gas in about 311 individual brick factories in two industrial clusters. The project proponent from the host Party Egypt is IDEA. The natural gas will be supplied up to the factory limits by the utility company Egyptian Town Gas (ETG).

DNV during the course of the validation and site visit, had verified the Joint Cooperation Agreement signed on 14 June 2006, between ETG and IDEA (witnessed by Chairman of the Egyptian Natural Gas Holding Company (EGas)). The copy of the document was referenced in our validation report (referenced 10) and is attached as annex 1. It is evident from the document that the agreement is for converting about 200 units to natural gas with provision for additional conversions being undertaken at subsequent phases.

According to the Joint Cooperation Agreement the project is expected to be completed within 24 months of from the official date of approval of the project as a CDM project.

Given that the main agreement for the supply of gas is in place and the approval of the host Party Egypt does not include any conditions concerning the contracts between the project developer and the brick factory owners, DNV submitted the project for registration.

We would also like to note that contracting is in DNV's opinion an operational matter relating to project implementation and not within the scope of validation.

We sincerely hope that the Board accepts our aforementioned explanations and we look forward to the registration of the project activity.

Yours faithfully
for DET NORSKE VERITAS CERTIFICATION AS

Michael Lehmann
Technical Director
International Climate Change Services

C Kumaraswamy
Manager – South Asia
Climate Change Services

Annex I
Joint Cooperation Agreement

GENERAL TERMS

Egypt Towns Gas (ETG) and a group of Canadian companies represented by **International Development & Environment Associates (IDEA) Inc**. agree to enter into a joint cooperation agreement in order to execute projects in Egypt under the Clean Development Mechanism (CDM) provisions of the international Kyoto Protocol, as described herein.

This concept of a joint cooperation agreement has been endorsed by His Excellency Engineer Sameh Fahmy, the Minister of Petroleum, and is supported by the **Egyptian Natural Gas Holding Company (EGas).**

3.0 Specifically, this joint cooperation agreement is with reference to a project which will convert some 200 brick-making factories from burning mazot as fuel, to burn natural gas; beginning with some 85 factories in Arab Abu Saed as the first phase, and continuing with some 120 factories in El Saaf as a second phase.

4.0 Additional conversions of brick-making factories in other geographic areas may be undertaken as subsequent phases of this project, and other projects may be undertaken within the frame-work of this joint cooperation agreement.

The basis of this project is that **ETG** will be responsible for the provision and installation of all the required external piping networks (EPN) needed to provide gas to each of the factories to be converted, and **IDEA** will be responsible for the provision and installation of all the required internal piping networks (IPN), electrical upgrades and gas burner racks (GBR) needed to operate on gas at each of the factories to be converted. **IDEA** will also manage the CDM approvals and the Certified Emission Reduction (CER) verification, marketing and sales elements of the project.

Both **ETG** and **IDEA** costs are intended to be recovered

through revenues from the sale of the CERs which will be generated by the converted factories over an expected 10-year duration.

7.0 Since overall project execution will be enhanced through close cooperation, both Parties agree to examine the prospect of a joint project office within **ETG**'s premises.

8.0 Since CER generation will be enhanced by efficient brick factory operations, both Parties agree to examine the prospect of establishing an appropriate operational training and equipment maintenance and repair service capability at the Arab Abu Saed and El Saaf locations.

Both Parties agree to examine the prospect of contracting **ETG** to install the IPN at the brick factories that will be converted to natural gas.

0 Both Parties agree to examine the prospect of facilitating the application of **EGas**'s gas conversion financing loan program for the brick factory contribution to the overall conversion project cost.

11.0 Initiation of the project described herein is conditional on approval from the CDM Executive as an official CDM project.

PROJECT EXECUTION SCHEDULE

The project will be executed in full within a 24-month (2 year) period from the official start-date, which is deemed to be the day on which **IDEA** formally advises **ETG** that the project has been approved by the CDM Executive. Although it is not possible to predict with certainty when the CDM approval will be provided, it is expected to occur in September/October, 2006.

The project will be executed in 2 phases, with Phase-1 entailing the conversion of the target 85 factories in Arab Abu Saed, and Phase-2 entailing the conversion of the target 120 factories in El Saaf.

3.0 **ETG** will install the complete external infrastructure (EPN) required to deliver natural gas to the target 85 factories in Arab Abu Saed by the end of the 6th-month from the official start-date of the project.

4.0 **IDEA** will complete all necessary conversions required for these 85 factories in Arab Abu Saed to operate on natural gas by the end of the 12th-month from the official start-date of the project – conditional on the **ETG** requirement described in No.3.0 (above) having been satisfied.

5.0 **ETG** will install the complete external infrastructure (EPN) required to deliver natural gas to the target 120 factories in El Saaf by the end of the 18th-month – with an operative Pressure Reduction Station (PRS) functioning by the end of the 12th-month – from the official start-date of the project.

6.0 **IDEA** will complete all necessary conversions required for these 120 factories in El Saaf to operate on natural gas by the end of the 24th-month from the official start-date – conditional on the **ETG** requirement described in No.5.0 (above) having been satisfied.

7.0 Both Parties agree that the economics of the project would be improved by a shorter project execution time-line, and would be damaged by an extended project execution time-line. In this regard, both Parties agree to exert their best efforts to expedite their respective project execution elements and to minimize the overall schedule as much as possible, and to discuss a potential financial disincentive strategy for delays.

PROJECTED PAYMENT SCHEDULE

1.0 The schedule of payments is dependant upon a number of factors which can not be fully known and/or controlled by either Party. These include – the time-line for technical project execution; the annual rate of CER generation by each factory; and the annual selling price of the resultant CERs. However, these factors can be estimated at a high-enough level of confidence to support effective planning and decision-making.

The time-line for technical project execution is the factor most fully controllable by both Parties, and has been described in the Project Execution Schedule. Improvements in this schedule will benefit both Parties, and delays will disadvantage both Parties.

3.0 The annual rate of CER generation is estimated based on the experience of the pilot CCI Project. Each factory can produce 2,000 tonnes of carbon reduction per year, at full production capacity and optimal (100%) operating efficiency. The assumption underlying this projected payment schedule is that there will be 205 brick factories operating on natural gas and generating an average 1,800 tonnes per year (i.e. 90% efficiency) over a 10-year term.

A secondary assumption in this regard is that the CER generation rate will be about 10% in the first year (Year-2), about 55% in the second year (Year-3), about 80% in the third year (Year 4), and at 100% of the annual project totals from Year 5 through Year 12.

Changes in the number of factories involved or in their operational efficiencies will affect the total number of CERs generated, and therefore the total amount of revenue produced by the project.

Changes in the assumed timing to reach 100% of the project's annual CER generation rate will affect the specific amount of the annual payments in the years before the 100% generation rate is achieved.

Neither Party can control this factor fully, but there are mitigation measures available to minimize the potential down-side, as follows:

(i) to maximize the brick factory participation rate in the project, **IDEA** will communicate the operational cost improvement resulting from conversion to natural gas, as identified in the cost-benefit analyses of the pilot CCI Project;

(ii) **IDEA** will also attempt to facilitate the application of the

EGas gas conversion financing loan program to lessen the financial burden of participation on the brick factories;

(ii) to maintain the operational efficiency of the gas systems at the target 90% level, both Parties will work towards the development of an appropriate maintenance and repair support capability at Arab Abu Saed and El Saaf, as described in General Terms – 8.0.

8.0 A residual element of this factor which can not be controlled by either Party is the annual brick production rate at these factories through-out the 10-year CER generation period. This will vary according to market forces of supply-and-demand. CER generation rate (and hence revenue generation) will vary based on annual brick production.

Neither Party has any control over the annual CER selling price. The market for this product is relatively new and highly dynamic. The global carbon trading market has seen transactions ranging from $5/tonne to over $30/tonne since Kyoto came into effect, and as a commodity market, it will continue to fluctuate. Although the ratification of a Kyoto Phase-2 is expected, there is no guarantee that the current market for carbon credits will continue past the end of Phase-1 in 2012. In order to optimize the selling price of the CERs, IDEA will carry out human health risk assessments and socioeconomic programming for the brick factory work-force. These collateral benefits of the project are expected to attract premium-pricing from the CER buyers.

All the above notwithstanding, based on an on-going assessment of the international climate change agenda and the behaviour of carbon markets to-date, the average CER selling price is estimated with a conservative range of $10/tonne (low estimate), $15/tonne (medium estimate), and $20/tonne (high estimate). On this basis, and with the other assumptions described above, the projected payment schedule to **ETG** is as follows:

Projected Payment Schedule

Year		Medium Estimate @$15/tonne	High Estimate @$20/tonne
Yr. (no CERs)			
Yr 2 (partial CERs)	$100,000	$150,000	$200,000
Yr 3 (partial CERs)	$500,000	$750,000	$1,000,000
Yr 4 (partial CERs)	$750,000	$1,125,000	$1,500,000
Yr.5 (full CERs)	$1,000,000	$1,500,000	$2,000,000
Yr.6	$1,000,000	$1,500,000	$2,000,000
Yr.7	$1,500,000	$2,250,000	$3,000,000
Yr.8	$1,500,000	$2,250,000	$3,000,000
Yr.9	$2,000,000	$3,000,000	$4,000,000
Yr.10	$2,000,000	$3,000,000	$4,000,000
Yr.11	$2,000,000	$3,000,000	$4,000,000
Yr.12 (Final Year)	$2,000,000	$3,000,000	$4,000,000
Totals	$13,350,000	$20,025,000	$26,700,000

.0 All 3 projections show a full cost recovery for **ETG** over the project life-span, with about a 33% excess revenue component based on a "low" CER selling price; about a 100% excess revenue component based on a "medium" CER selling price; and about a 167% excess revenue component based on a "high" CER selling price.

12.0 Each payment to **ETG** will be supported by detailed documentation regarding the number of approved CERs and the CER selling price, per transaction.

For **ETG**:

Eng. Ibrahim Shawkat, Chairman _____

For **IDEA Inc.**:

Richard A. Szudy, President _____

Signed on the 14th day of June, 2006, in Cairo, Egypt.

Witnessed by: Eng. Sherif Ismail, EGas Chairman _____