

GM: 02140

**UNIFORM REPORTING DOCUMENT  
ACTIVITIES IMPLEMENTED JOINTLY UNDER THE PILOT PHASE**

**A. Description of project****1) Title of project**

The Model Project for "Reduction of Electric Power Consumption in Cement plant"

**2) Participants / actors**

Item	Please fill in if applicable
Name of organization	New Energy and Industrial Technology Development Organization
Name of organization (English)	(Same as above)
Department	International Cooperation Center
Acronym	NEDO
Acronym (English)	(Same as above)
Function within activity	Project administration, Project development
Street	SUNSHINE 60, 29F, 1-1, 3-CHOME HIGASHI-IKEBUKURO, TOSHIMA-KU
Post code	170-6028
City	TOKYO
Country	JAPAN
Telephone	+81-3-3987-9466
Fax	+81-3-3987-5103
E-mail	shikatasgr@nedo.go.jp
WWW-URL	www.nedo.go.jp
Contact person (for this activity)	----- -
Surname	SHIKATA
First name, middle name	Shigeru
Job title	Director
Direct tel	+81-3-3987-9466
Direct fax	+81-3-3987-5103
Direct E-mail	shikatasgr@nedo.go.jp

Item	Please fill in if applicable
Name of organization	Kawasaki Heavy Industries, Ltd.
Name of organization (English)	(Same as above)
Department	Heat Recovery Plant Department Boiler Plant Division
Acronym	KHI
Acronym (English)	(Same as above)
Function within activity	Project development
Street	World Trade Center Bldg., 4-1, Hamamatsu-cho 2-chome, Minato-ku
Post code	105-6116
City	Tokyo
Country	JAPAN

GM: 02140

Telephone	+81-3-3435-2111
Fax	+81-3-3436-3037
E-mail	
WWW-URL	www.khi.co.jp
Contact person (for this activity)	----- -
Surname	SORIDA
First name, middle name	Katsushi
Job title	Manager
Direct tel	+81-3-3615-5284
Direct fax	+81-3-3615-6352
Direct E-mail	

Item	Please fill in if applicable
Name of organization	Ministry of Construction
Name of organization (English)	(Same as above)
Department	Department of Science and Technology
Acronym	MOC
Acronym (English)	(Same as above)
Function within activity	Project administration
Street	37 Le Dai Hanh Str.
Post code	
City	HANOI
Country	VIETNAM
Telephone	+84-4-821-5662
Fax	+84-4-854-4288
E-mail	
WWW-URL	
Contact person (for this activity)	----- -
Surname	NGUYEN HUU DUNG
First name, middle name	
Job title	Director
Direct tel	+84-4-976-0775
Direct fax	+84-4-976-2153
Direct E-mail	

Item	Please fill in if applicable
Name of organization	Vietnam National Cement Corporation
Name of organization (English)	(Same as above)
Department	Technical Division
Acronym	VNCC
Acronym (English)	(Same as above)
Function within activity	Project administration
Street	108 Le Duan Str.
Post code	
City	HANOI

GM: 02140

Country	VIETNAM
Telephone	+84-4-851-0593
Fax	+84-4-851-2778
E-mail	
WWW-URL	
Contact person (for this activity)	----- --
Surname	DO DUC OANH
First name, middle name	
Job title	Chief of Technical Division
Direct tel	+84-4-851-3079
Direct fax	+84-4-851-2778
Direct E-mail	

Item	Please fill in if applicable
Name of organization	Ha Tien II Cement Company
Name of organization (English)	(Same as above)
Department	
Acronym	HT2
Acronym (English)	(Same as above)
Function within activity	Project development
Street	
Post code	
City	Ha Tien, Kien Giang
Country	VIETNAM
Telephone	+84-77-853004
Fax	+84-77-853005
E-mail	
WWW-URL	
Contact person (for this activity)	----- --
Surname	NGO CHI NHAN
First name, middle name	
Job title	Vice Director
Direct tel	+84-77-853004
Direct fax	+84-77-853005
Direct E-mail	

## 3) Activity

Item	Please fill in if applicable
General description	In most cement plant in Vietnam, heat of the gas exhausted from pre-heating equipment is partially used in drying materials process and after then the gas is released to the atmosphere without fully utilizing its energy. This project enables to recover the heat as steam and generate electric power by installing a waste

GM: 02140

	heat boiler, steam turbine, and generator in a cement plant. Therefore, the fossil fuel consumed by the existing diesel generator, which partially covers electric power consumption in the cement plant, will be reduced, and the emission of carbon dioxide will be reduced.
Type of project	Energy efficiency
Location	Ha Tien, Kien Giang, Vietnam
Activity starting date	July 1998
Expected activity ending date	2001
Stage of activity	In progress
Lifetime of activity if different from ending date	The effect of this project will be continued until the facility installed by this project is broken down due to superannuation.
Technical data	Amount of electric power generated by the facility installed by this project will be registered. The reduction in emission of carbon dioxide will be calculated with it.

GM: 02140

4) Cost (to the extent possible)

Cost has not been fixed yet.

Item	Year 1	Year 2	Year 3 ....
Cost of the project in US\$			
AIJ component in US\$			
US\$ per avoided ton of CO2 equivalent			

5) Mutually agreed assessment procedure

Describe the procedures, including name of organizations involved
<p>Memorandum of understanding among NEDO, MOC, VNCC, and HT2 concerning the model project for reduction of electric power consumption in cement plant was concluded on July 15, 1998.</p> <p>Memorandum of understanding among NEDO, MOC, and Hydrometeorological Service of S.R. Vietnam (hereinafter referred to as HMS) concerning the model project for reduction of electric power consumption in cement plant as a project AIJ under the pilot phase was concluded on July 15, 1998.</p> <p>NEDO entrusted the execution of Japanese scope of this project to KHI on September 4, 1998.</p> <p>Execution document of this project which specified the execution of this project in detail was concluded between KHI and HT2 on November 5, 1998.</p>

**B. Governmental acceptance, approval or endorsement**

1) For the activity

This report is the first report, and copies of letters of endorsement by each designated national authority of Parties are attached.

**Describe**

<p>The Ministry of International Trade and Industry, Japan approved NEDO to implement this project as AIJ- Japan Program on July 10, 1998.</p> <p>HMS approved this project as AIJ under the pilot phase by means of signing the Memorandum of understanding among NEDO, MOC, and HMS concerning this project as a project of AIJ under the pilot phase on July 15, 1998.</p>
---

2) This report is a joint report

Yes

**3) General short comment by the government(s) if applicable*****C. Compatibility with and supportiveness of national economic development and socio-economic and environment and strategies***

**Describe (to the extent possible) how the activity is compatible with and supportive of national economic development and socio-economic and environment priorities and strategies**

As energy supply and demand issues and protection of the global environment have become the focus of worldwide interest as well as Japan, NEDO is promoting energy conservation model projects in Asian countries including Vietnam to contribute the effective use of energy and improvement of environmental pollution.

In Vietnam, as strong national policy for energy conservation and environmental protection, relating laws have come into effect.

As a joint project between Japan and Vietnam, this project will contribute to environmental protection and energy conservation by means of waste heat recovery from the existing plant, as well as greenhouse gas mitigation such as carbon dioxide. Also the economic benefits of this project include reduction in energy consumption in cement plants.

**D. Benefits derived from the activities implemented jointly project**

Item	Please fill in
Describe environmental benefits in detail	This project doesn't have bad influence on environmental aspect.
Do quantitative data exist for evaluation of environmental benefits ?	Not yet available
Describe social/cultural benefits in detail	Technical transferring effect to the counter part country is expected.
Do quantitative data exist for evaluation of social benefits ?	Not yet available
Describe economic benefits in detail	Economic effect caused by construction is expected. Increase in employment of maintenance and operating personnel is expected.
Do quantitative data exist for evaluation of economic benefits ?	Not yet available

**E. Calculation of the contribution of activities implemented jointly projects that bring about real, measurable and long-term environmental benefits related to the mitigation of climate change that would not have occurred in the absence of such activities****1) Estimated emission without the activity (project baseline)**

In the absence of this project, the factory targeted by this project will continue to operate normally their diesel generator ( $27.65 \times 10^6$  kWh per year is generated), and carbon dioxide will be emitted from the diesel generator continuously (19,730 ton-CO<sub>2</sub> per year).

**2) Estimated emission with the activity**

This project enables to recover the heat as steam and generate electric power by installing a waste heat boiler, steam turbine, and generator in a cement plant. Therefore, the fossil fuel consumed by the existing diesel generator which generates electric power required in the cement plant will be reduced, and the emission of carbon dioxide will be reduced.

Amount of reduced emission of carbon dioxide by this project corresponds to amount of carbon dioxide emitted from the diesel generator in case that the diesel generator generates the annual amount of electric power generated by the facility installed by this project ( $19.94 \times 10^6$  kWh per year).

Amount of reduced emission of carbon dioxide is 14,230 ton-CO<sub>2</sub> per year.

Summary table : *Projected emission reduction*10<sup>6</sup>kg / year

	GHG	1998	1999	2000	2001	2002	2011
A) Project baseline scenario	CO <sub>2</sub>	19.73	19.73	19.73	19.73	19.73	19.73
	CH <sub>4</sub>	0	0	0	0	0	0
B) Project activity scenario	CO <sub>2</sub>	19.73	19.73	19.73	19.73	5.5	5.5
	CH <sub>4</sub>	0	0	0	0	0	0
C) Effect	CO <sub>2</sub>	0	0	0	0	14.23	14.23
	CH <sub>4</sub>	0	0	0	0	0	0
D) Cumulative effect	CO <sub>2</sub>	0	0	0	0	14.23	142.3
	CH <sub>4</sub>	0	0	0	0	0	0

The effect on this project will be available after completion of the installation work in 2001.

*F. Bearing in mind that the financing of activities implemented jointly shall be additional to financial obligations of Parties included in Annex II to the Convention within the framework of the financial mechanism as well as to current official development assistance flows, please indicate*

Source of project funding (For each source one line)	Amount (US dollars)
Subsidy for improving international energy use ( Japanese national budget which is MITI undertaking )	4,400,000 (1997FY - 1998 FY) (n/a for the budget on and after 1999)
Funding prepared by the target factory of this project in Vietnam	

*G. Contribution to capacity building, transfer of environmentally sound technologies and know-how to other Parties, particularly developing country Parties, to enable them to implement the provisions of the Convention. In this process, the developed country Parties shall support the development and enhancement of endogenous capacities and technologies of developing country Parties*

Know-how on construction and operation of the facility installed by this project will be transferred. Capacity building will be created by training of personnel in Japan and on site and by Japanese supervision on site.

**H. Additional comments, if any, including any practical experience gained or technical difficulties, effects, impacts or other obstacles encountered**

**1) Any practical experience gained**

This project has been started in July 1998. Now the engineering for the facility is being promoted by KHI. Since this project is a model project, dissemination activity of the technology through demonstration operation is planned in the final stage of overall project schedule. A large effect of energy conservation and environmental approval would be expected through dissemination of the technology in the future.

**2) Technical difficulties**

Not yet available

**3) Negative impacts and/or effects encountered**

Item	Please fill in
Describe environmental negative impacts/effects in detail	Not expected
Do quantitative data exist for evaluation of environmental negative impacts/effects ?	Not yet available
Describe social/cultural negative impacts/effects in detail	Not expected
Do quantitative data exist for evaluation of social negative impacts/effects ?	Not yet available
Describe economic negative impacts/effects in detail	Not expected
Do quantitative data exist for evaluation of economic negative impacts/effects ?	Not yet available

**4) Other obstacles encountered**

Not yet available

**5) Other**

Not yet available

GM: 02140

# 通商産業省

平成10-07-08資第26号

平成10年7月10日

新エネルギー・産業技術総合開発機構  
理事長 松井 秀行 殿

通商産業大臣 堀内 光雄



共同実施活動ジャパン・プログラムに係るベトナム社会主義共和国におけるセメント焼成プラント電力消費削減モデル事業の認定について

平成10年7月1日付け10度新エネ国第57号をもって申請のあった上記については、「気候変動枠組条約に係るパイロット・フェーズにおける共同実施活動に向けた我が国の基本的枠組み（共同実施活動ジャパン・プログラム）」に基づく共同実施活動プロジェクトとして認定します。

プロジェクトに変更があった場合又はプロジェクトを廃止した場合は、その理由を明らかにした書類を添付して直ちに届け出てください。また、プロジェクト実施中は、毎年報告書を提出願います。

なお、気候変動枠組条約第1回締約国会議の決定等により、本プロジェクトが条約事務局により「共同実施活動」として受理されるためには、プロジェクトの実施場所を管轄する外国政府等からの共同実施活動としての認定等が必要となるため、新エネルギー・産業技術総合開発機構に対し、ベトナム社会主義共和国関係機関と必要な合意を取り付けるよう要請いたします。

GM: 02140

MEMORANDUM  
OF  
UNDERSTANDING

AMONG

NEW ENERGY AND INDUSTRIAL TECHNOLOGY  
DEVELOPMENT ORGANIZATION  
JAPAN

AND

HYDROMETEOROLOGICAL SERVICE  
OF SOCIALIST REPUBLIC OF VIETNAM

AND

THE MINISTRY OF CONSTRUCTION  
THE SOCIALIST REPUBLIC OF VIETNAM

CONCERNING

THE MODEL PROJECT  
FOR  
REDUCTION OF ELECTRIC POWER COMSUMPTION  
IN CEMENT PLANT

AS

A PROJECT OF AIJ UNDER THE PILOT PHASE

GM: 02140

New Energy and Industrial Technology Development Organization, Japan (hereinafter referred to as "NEDO") and Hydrometeorological Service of Socialist Republic of Vietnam (hereinafter referred to as "HMS") and the Ministry of Construction, the Socialist Republic of Vietnam (hereinafter referred to as "MOC"), with regard to the Model Project for Reduction of Electric Power Consumption in Cement plant (hereinafter referred to as "the Project"), bearing in mind the Decision 5/CP.1 of the First Conference of the Parties of UNFCCC which established a pilot phase for Activities Implemented Jointly (AIJ), have reached the following understanding;

1. HMS endorses the Project as a project of AIJ under the pilot phase.
2. The inputs made by NEDO to the Project shall be in full consistence with Paragraph 1(e) of the Decision on AIJ of the COP of the UNFCCC (5/CP.1) in which the financing of the activities implemented jointly shall be an addition to the financial obligations of Parties included in Annex II to the Convention within the framework of the financial mechanism as well as to current official development assistance (ODA) flows.
3. No credit shall accrue to any Party as a result of greenhouse gases emissions reduction by the Project in which NEDO and MOC participate.
4. Report of the agreed items on the AIJ aspects of the Project shall be in accordance with Decision 5/CP.1 and with the framework established by the COP. Such report may be submitted to the COP through the Secretariat jointly or separately by the two Governments.

GM: 02140

IN WITNESS THEREOF, NEDO, HMS, and MOC have executed this Memorandum on the date stated below.

This Memorandum has been prepared and signed in quadruplicate, and every originals shall be equally valid.

HANOI, JULY 15<sup>th</sup>, 1998

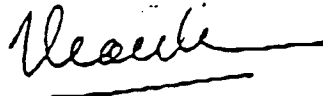
New Energy  
and Industrial Technology  
Development Organization  
Japan



MASAAKI ITO  
Executive Director

Hydrometeorological Service of

The Socialist Republic of Vietnam



For NGUYEN DUC NGU  
Director General

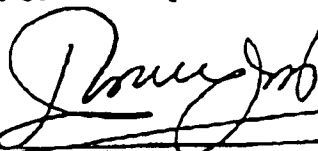
The Ministry of Construction  
The Socialist Republic of Vietnam



DANG NGHIEM CHINH  
Vice Minister

WITNESS

The Ministry of Science, Technology  
and Environment  
The Socialist Republic of Vietnam



PHAM KHOI NGUYEN  
Vice Minister

GM: 02140

**EMBASSY OF JAPAN  
HANOI**

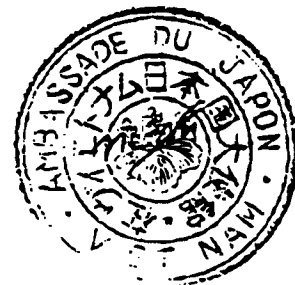
No. J.D. 92/99

The Embassy of Japan in the Socialist Republic of Viet Nam presents its compliments to the Hydrometeorological Service of the Socialist Republic of Viet Nam and has the honor to refer to the Decision 5/CP.1 on Activities implemented jointly under the pilot phase taken by the Conference of the Parties of the United Nations Framework Convention on Climate Change at its First Session.

The Embassy of Japan has further the honor to ask the Government of the Socialist Republic of Viet Nam to endorse, as one of the Activities Implemented Jointly under the pilot phase referred to above, "the Model Project for Reduction of Electric Power Consumption in Cement Plant Ha Tien 2" between New Energy and Industrial Technology Development Organization (NEDO), Japan and the Hydrometeorological Service of the Socialist Republic of Viet Nam, the outline of which is described in the attached paper.

The Embassy of Japan avails itself of this opportunity to renew to the Hydrometeorological Service of the Socialist Republic of Viet Nam the assurances of its highest consideration.

*Hanoi, December 06, 1999*



To: Hydrometeorological Service  
The Socialist Republic of Viet Nam

GM: 02140

HYDROMETEOROLOGICAL SERVICE OF  
THE SOCIALIST REPUBLIC OF VIET NAM

Telephone : 84 48 253343  
Fax : 84 48 260779

4 Dang Thai Than street,  
Ha Noi, Viet Nam

---

No: 279 / HTQT

The Hydrometeorological Service of the Socialist Republic of Viet Nam presents its compliments to the Embassy of Japan in the Socialist Republic of Viet Nam and has the honor to refer to the latter's Note Verbale dated 06 December 1999 with regard to the Decision 5/CP.1 on Activities Implemented Jointly under the pilot phase taken by the Conference of the Parties of the United Nations Framework Convention on Climate Change at its First Session.

The Hydrometeorological Service of the Socialist Republic of Viet Nam has further the honor to inform the Embassy that the Government of the Socialist Republic of Viet Nam endorses as an Activities Implemented Jointly under the pilot phase "the Model Project for Reduction of Electric Power Consumption in Cement Plant HA TIEN 2" between New Energy and Industrial Technology Development Organization (NEDO), Japan and the Hydrometeorological Service of the Socialist Republic of Viet Nam referred to in the above-mentioned Note Verbale and its attachment.

The Hydrometeorological Service of the Socialist Republic of Viet Nam avails itself of this opportunity to renew to the Embassy of Japan the assurances of its highest consideration.

H. Noi, 06 December 1999



*Nguyễn Công Thanh*  
Nguyễn Công Thanh  
Director General

Hydrometeorological Service  
of the Socialist Republic of Viet Nam

To : Embassy of Japan  
in Viet Nam

( 3 )