

# Annual Project Report

Demonstration project for conversion from HCFC-22/HCFC-142b technology to CO<sub>2</sub> with methyl formate co-blowing technology in the manufacture of XPS foam at Feininger (Nanjing) Energy Saving Technology Co. Ltd.

[16<sup>th</sup>, Jan, 2013]

## Basic Project Information

Project Title: Demonstration project for conversion from HCFC-22/HCFC-142b technology to CO<sub>2</sub> with methyl formate co-blowing technology in the manufacture of XPS foam at Feininger (Nanjing) Energy Saving Technology Co. Ltd.

UNDP Award ID	00063444
UNDP Project ID	00080517
Project Duration	2011-2013
Reporting Period	January-December 2013
Total Approved Project Budget	\$1,973,300
Participating UN agencies	UNDP
Implementing Partners/ National collaborating agencies	FECO/MEP
International collaborating agencies	
Cost-sharing third parties	
UNDP Contact officer	Cao Qiaohong
Project website	

## **Executive Summary**

The Demonstration Proposal prepared and submitted to the 62<sup>nd</sup> ExCom meeting. And the Executive Committee approved the XPS Demonstration project in 64<sup>th</sup> meeting in July 2011 at a funding level of US \$ 1,973,300. The Project Document between FECO/MEP and UNDP was signed in November 2011, and the first payment from UNDP to FECO/MEP has been made in January 2012. The project contract between FECO/MEP and the beneficiary enterprise-Nanjing Feininger has been signed in March 2012. The implementation plan of the demonstration project has been formulated and agreed by FECO/MEP in February 2012. The phase-out activity at the enterprise was initiated practically in March 2012. The equipment installation has been completed, and the second payment from UNDP to FECO/MEP has been made in January 2013.

## **1. Background**

### **Development Context**

During the 64th Meeting of the Executive Committee, the Demonstration project for conversion from HCFC-22/HCFC-142b technology to CO<sub>2</sub> with methyl formate co-blowing technology in the manufacture of XPS foam at Feininger (Nanjing) Energy Saving Technology Co. Ltd. (CPR/FOA/64/DEM/507) was approved by the Executive Committee with UNDP as the implementing agency. Total approved funding from MLF was US \$ 1,973,300. This demonstration project, upon successful completion, will establish the suitability of CO<sub>2</sub> with methyl formate co-blowing technology as a viable replacement to HCFC-22/HCFC-142b technology in the manufacture of XPS foam at Feininger (Nanjing) Energy Saving Technology Co. Ltd. The project will provide an environmentally safe and cost-effective alternative for enabling replication of this technology in similar applications and enterprises in the XPS Foam Sector in China contributing to the viability of a large number of enterprises in this sector, and result in reductions in HCFC consumption of 12.3 ODP tonnes, contributing to compliance with the 2013/2015 control targets. It will also lead to net annual emission reductions of 420,250 tonnes CO<sub>2</sub>-eq. The implementation of the project will follow the rules and procedures of National Execution (NEX). The Performance Based Payment (PBP) mechanism will be applied for the implementation.

### **Project Objectives and Strategy**

The objective of this demonstration project is to establish the suitability of CO<sub>2</sub> with methyl formate co-blowing technology as a viable replacement of the currently used combination of HCFC-22 and HCFC-142b as blowing agent in the manufacture of XPS foam at Feininger (Nanjing) Energy Saving Technology Co. Ltd. The project will be implemented in conjunction with the Sector Plan for HCFC phase-out in the XPS Foams Sector, submitted simultaneously.

## **2. Key Results**

The Project Document between FECO/MEP and UNDP was signed in November 2011, and the first payment from UNDP to FECO/MEP has been made in January 2012. The project contract between FECO/MEP and the beneficiary enterprise-Nanjing Feininger has been

signed in March 2012. The implementation plan of the demonstration project has been formulated and agreed by FECO/MEP in February 2012. The phase-out activity at the enterprise was initiated practically in March 2012. The equipment installation has been completed, and the second payment from UNDP to FECO/MEP has been made in December 2012.

## **Activities and Outputs**

### **Activity 1.1 Technical Assistance and supporting implementation**

An appraisal meeting on the project implementation plan was held in Beijing on February 2012, participated by FECO and the technical and financial experts from CPPIA, BTBU and the accounting firm.

### **Activity 1.2 Implementation of Conversion**

The project implementation plan of the demonstration at Nanjing Feininger has been evaluated by experts and agreed by FECO/MEP in February 2012. The phase-out activity at the enterprise was initiated practically in March 2012. The equipment installation has been completed in December 2012.

### **Activity 1.3. Project Management**

The Demonstration Project Document was finalized and signed between FECO/MEP and UNDP in December 2011. The project contract between FECO/MEP and the beneficiary enterprise-Nanjing Feininger has been signed in March 2012. The equipment installation has been completed in mid-December 2012. In order to trace the project implementation situation and verify whether the performance for the milestone that the payment depends in have been satisfying, FECO has organized one performance verification activities to Feininger (Nanjing) on Dec.17 and Dec.18, 2012. The verification activity was carried out in a process of planning, preparation, data confirmation, technical material checking, on-the-spot investigation, result conformation and conclusion. The verification results showed that the project was in good situation and implemented as scheduled.

## **Sustainability**

The successful implementation of this Demonstration Project will result an annual reduction of minimum 12.3 ODP tonnes, and will demonstration and availability of an environmentally safe and cost-effective alternative for enabling replication of this technology in similar applications and enterprises in the XPS Foam Sector in China, contribution to China's compliance with the 2013 and 2015 control targets.

## **MDG Targets**

Not applicable

## **Partnership Effectiveness**

Not applicable

## **Cross-cutting Issues**

The successful implementation of this project will result an annual reduction of minimum 12.3 ODP tonnes and annual emission reductions of 420,250 tonnes CO<sub>2</sub>-eq.

This project will demonstration and availability of an environmentally safe and cost-effective alternative for enabling replication of this technology in similar applications and enterprises in the XPS Foam Sector in China, and contribution to China's compliance with the 2013 and 2015 control targets.

## **3. Project Management and Oversight**

### **Implementation status**

The implementation activities have been carried out according to Implementation Plan. The equipment installation has been completed in mid-December 2012, the trial running will be completed in April 2013. The project is expected totally completed in July 2013.

### **Monitoring and Evaluation**

In order to trace the project implementation situation and verify whether the performance for the milestone that the payment depends in have been satisfying, FECO has organized one performance verification activities to Feininger (Nanjing) on Dec.17 and Dec.18, 2012. The verification activity was carried out in a process of planning, preparation, data confirmation, technical material checking, on-the-spot investigation, result conformation and conclusion. The verification results showed that the project was in good situation and implemented as scheduled.

### **Human Resource Management**

Not applicable

### **Risk management**

Not applicable

### **Inter-Agency Coordination and Delivering as One**

Not applicable

### **Communication and advocacy**

Not applicable

## 4. Financial Management

	Source of Fund	Budget	Expenditure
Expenditure Vs. Approved project budget by source of funding	UNDP	\$1,955,300	\$1,668,300*/779,770**
	Government Cost Sharing	-	-
	Third Party Cost-sharing	-	-
	Other (please specify)	-	-
	<b>Total</b>	<b>\$1,955,300</b>	<b>\$1,668,300*/779,770**</b>

Note: \* refers to the cumulative expenditure from UNDP to FECO/MEP; \*\* refers to the cumulative expenditure by FECO/MEP until the reporting year.

Output	Activities	Source of Funding	Budget Description	Annual Budget (USD)	Annual Expenditure (USD)	Note
Output 1	1.1 Technical Assistance and supporting implementation	MLF	Trainings and coordination workshops, travels and other Implementing support cost etc.	\$98,665.00		
			Local consultants, travels for performance verification	\$12,000.00	\$952.6	
	1.2 Implementation of Conversion	MLF	Subcontract of Incremental Capital Cost (ICC) including equipments procurement, training and assessment, etc.	\$1,557,635	\$778,817.5	
<b>Total</b>				<b>\$1,668,300</b>	<b>\$779,770.1</b>	

Note: The annual expenditure from UNDP to FECO/MEP is USD 834,150 in the reporting year.

## **5. Management recommendations**

### **5.1 Recommendation**

Standards and other policy issues are of great importance to address a successful HCFC phase-out in the XPS foam sector. Learning the technologies in developed countries will help to identify suitable technologies for local industry.

### **5.2 Recommendation**

Expert specialized in XPS Foam Sector offers great assistance to the proposal formulation and gives improving considerations on the future phase-out work in the sector. The demonstration project needs more experts in universities and research facilities to involve to provide technical advices.

## **6. Conclusion**

The project has been in real implementation of phase out activities at enterprise and made much progress. The process has been reviewed and scrutinized by expert and FECO/MEP. The results showed that the project was in good situation and implemented as scheduled. The progress shall be expedited in 2013 for disseminating the demonstration experience to more enterprises in the sector.

## **7. Annexe/s**