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Validation Report

DCM SHRIRAM CONSOLIDATED LTD.

VALIDATION OF THE REVISED MONITORING PLAN OF THE REGISTERED CDM-PROJECT NO. 0332

AJBAPUR SUGAR COMPLEX COGENERATION PROJECT

REPORT NO. 962892-RM

11 September 2007

TÜV SÜD Industrie Service GmbH

Carbon Management Service
Westendstr. 199 - 80686 Munich – GERMANY

Report No.	Date of first issue	Revision No.	Date of this revision	Certificate No.
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Subject: Validation of a Revised Monitoring Plan

Accredited TÜV SÜD Unit:	**TÜV SÜD Contract Partner:**
TÜV SÜD Industrie Service GmbH Certification Body "climate and energy" Westendstr. 199 - 80686 Munich Federal Republic of Germany	TÜV SÜD South Asia C-153/1, Okhla Industrial Estate Phase- 1 New Delhi – 110020 India
Client:	**Project Site(s):**
DCM Shriram Consolidated Ltd. 5th Floor, Kanchenjunga Building 18, Barakhamba Road New Delhi – 110001 India	Village Ajbapur, PO. Mullapur, District Lakhimpur Kheri, Uttar Pradesh, India

Project Title: Ajbapur Sugar Complex Cogeneration Project

Applied Methodology / Version: AMS I.D version 7	**Scope(s):** 1

Registered PDD Version:	**Revised Monitoring Plan:**
Registration Date: 2006-05-01 Starting Date of Crediting Period: 2005-10-01	Date of issuance: 2007-06-28
Assessment Team Leader:	**Further Assessment Team Members:**
Ayse Frey	Sunil Kathuria Abhishek Goyal

Summary of the Validation Opinion:

☒ The review of the revised monitoring plan and the subsequent follow-up interviews have provided TÜV SÜD with sufficient evidence to determine the fulfilment of all stated criteria. In our opinion, the revised monitoring plan meets all relevant UNFCCC requirements for the CDM. Hence TÜV SÜD will recommend the replacement of the monitoring plan of the registered PDD by the submitted revision.

☐ The review of the project design documentation and the subsequent follow-up interviews have not provided TÜV SÜD with sufficient evidence to determine the fulfilment of all stated criteria. Hence TÜV SÜD will not recommend the replacement of the monitoring plan of registered PDD.

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1 INTRODUCTION

1.1 Objective

The validation objective is an independent assessment by a Third Party (Designated Operational Entity = DOE) of a proposed revision of a monitoring plan against all defined criteria set for the registration under the Clean Development Mechanism (CDM). Validation is required in the context of proposed revisions of a registered CDM activity and will finally result in a conclusion by the executing DOE whether a revised monitoring plan is valid and should be submitted for replacing the previous version. The ultimate decision on the registration of a proposed revision rests at the CDM Executive Board.

The project activity discussed by this validation report is registered as CDM activity No. 0332 with the project title:

Ajbapur Sugar Complex Cogeneration Project

1.2 Scope

The scope of any assessment is defined by the underlying legislation, regulation and guidance given by relevant entities or authorities. The core requirements on revised monitoring plans are given by annex 12 of the report of EB-31 as referred below:

15. The request for revising monitoring plan is made in cases where:

a. the monitoring plan in the registered CDM project activity document is found not to be consistent with the approved monitoring methodology applied to the registered project activity; or

b. the proposed revision of the monitoring plan ensures that the level of accuracy or completeness in the monitoring and verification process is not reduced as a result of the revision;

The validation is not meant to provide any consulting towards the client. However, stated requests for clarifications and/or corrective actions may provide input for improvement of the project design.

2 METHODOLOGY

The project assessment aims at being a risk based approach and is based on the methodology developed in the Validation and Verification Manual, an initiative of Designated and Applicant Entities, which aims to harmonize the approach and quality of all such assessments.

2.1 Appointment of the Assessment Team

According to the technical scopes and experiences in the sectoral or national business environment TÜV SÜD has composed a project team in accordance with the appointment rules of the TÜV SÜD certification body "climate and energy". The composition of an assessment team has to be approved by the Certification Body ensuring that the required skills are covered by the team. The Certification Body TÜV SÜD operates four qualification levels for team members that are assigned by formal appointment rules:

- Assessment Team Leader (ATL)
- Greenhouse Gas Auditor (GHG-A)
- Greenhouse Gas Auditor Trainee (T)
- Experts (E)

It is required that the sectoral scope linked to the methodology has to be covered by the assessment team.

The validation team was consisting of the following experts (the responsible Assessment Team Leader in written in bold letters):

Name	Qualification	Coverage of technical scope	Coverage of sectoral expertise	Host country experience
Ayse Frey	**ATL**	☑	☑	
Sunil Kathuria	GHG-A	☑	☑	☑
Abhishek Goyal	T	☑	☑	☑

Dr. Ayse Frey is an auditor and project manager for CDM/JI projects as well as an energy/waste expert at TÜV SÜD Industrie Service GmbH. In her position she is responsible for the implementation of validation, verification and certifications processes for greenhouse gas mitigation projects in the context of the Kyoto Protocol. After her studies in civil and environmental engineering, she completed a PhD in the field of water and waste policy. She has extensive experience with the CDM and JI flexible mechanisms as well as with management systems.

Sunil Kathuria is an electrical engineer and a lead auditor for CDM projects and a lead auditor for quality and environmental management systems (according to ISO 9001 and ISO 14001) at TÜV SÜD South Asia, TÜV SÜD Group. He is based in New Delhi. In his position he is implementing validation, verification and certifications audits for CDM projects. He has received extensive training in the CDM validation process and has already participated in several CDM project assessments.

Abhishek Goyal is an auditor trainee for CDM projects and environment/energy expert at TÜV SÜD Industrie Service GmbH. Before joining the TÜV SÜD Industrie Service GmbH he has worked on development of PDDs and methodologies for several energy efficiency, renewable energy, and waste to energy projects. He has extensive experience in CDM.

2.2 Review of Documents

The revised Monitoring Plan submitted by the client and additional background documents related to further monitoring aspects were reviewed as initial step of the validation process.

2.3 Follow-up Interviews

Telephone conferences have been held with the responsible person (Mr. Sunil Radhakrishna) of DCM Shriram Consolidated Ltd. and (Mr. Robert Taylor) Agrinergy Ltd. in India discussing the revision of the monitoring plan.

2.4 Internal Quality Control

As final step of a validation the validation report has to undergo and internal quality control procedure by the Certification Body “climate and energy”, i.e. each report has to be approved either by the head of the certification body or his deputy. In case one of these two persons is part of the assessment team approval can only be given by the other one.

It rests at the decision of TÜV SÜD’s Certification Body whether a revised monitoring plan will be submitted for approval by the EB or not.

3 FINDINGS

TÜV SÜD was informed by project participants that changes have occurred at the project site whereby recording of electricity exported by the project activity to grid is not possible as defined in the monitoring plan in the registered PDD. This is due to the fact that another biomass based power plant registered as CDM project (No. 0982) has been implemented which also exports power to the grid. The electricity exported by project No. 0982 is also monitored through the same energy meter at the sub-station as installed in the project No. 0332.

To monitor the electricity exported by the project No. 0332, the project participants have installed two energy meters; one for monitoring the gross electricity generated by the project turbine (meter no. TNB01177) and other to monitor the auxiliary electricity consumption of the project turbine (meter no. 3701203). The difference of the readings from these meters will be used to derive the amount of electricity that is exported to the grid. The amount of electricity exported to the grid was required to be monitored as per the monitoring plan in the registered PDD, which will be now calculated based on difference of gross and auxiliary electricity metered. This approach is deemed reasonable because net amount of electricity generated (difference of gross generation and auxiliary consumption) is available for export to grid. However, TÜV SÜD issued the following clarification request and corrective action request:

Clarification request #1:

Please specify the date on which the project No. 0982 started to export electricity to grid. Also specify the date when the energy meter no. TNB01177 and 3701203 were installed.

Response by project participant

The project No. 0982 started to export electricity to grid on February 2nd 2007. The energy meters were installed along with the project No. 0332. Both the energy meters were installed in March 2005.

Final response by audit team

The CERs for the project no. 0332 have been issued for part of the crediting period between 1 October 2005 and 31 December 2006. This date for start of export of electricity from project no. 0982 confirms that there was no export from this project activity upto 31 December 2006 where the CERs from the project no. 0332 were based on amount of export recorded by energy meter installed at sub-station. Further since the meter no. TNB01177 and 3701203 were already installed in March 2005, the net energy generated by the project no. 0332 can be based on data recorded by these meters for the next monitoring period starting 1 January 2007.

Clarification request #2:

What is the accuracy level of the energy meter installed at sub-station? Is it lower, higher or comparable to accuracy of meter no. TNB01177 and 3701203?

Response by project participant

The energy meter installed at sub-station is of class 0.2. The gross energy meter TNB01177 is of class 0.2 and auxiliary energy meter is of class 1.

Final response by audit team

Since the gross energy meter no. TNB01177 is of same accuracy class as the meter installed at sub-station, there is no compromise on the accuracy level of the data with change in monitoring plan.

Clarification request #3:

What energy does meter no. 1K016259 measure? Is it something to do with project 0332?

Response by project participant

Meter 1K016259 has no relation with the project 0332.

Corrective action request #1:

Please include monitoring of total export to the grid in the monitoring plan to compare if total export is greater than net generation by project No. 0332.

Response by project participant

The monitoring of total export to grid has been included in the monitoring plan. This will be based on the monthly invoices raised by the factory to UPPCL.

Final response by audit team

Monitoring of total export to grid has been included in the monitoring plan. It would be measured by energy meter no. APS00864 installed at sub-station at project site and energy meter no. APMO4047 installed at grid sub-station.

TÜV SÜD considers the revised monitoring plan as acceptable and reasonable. It can be confirmed that the level of accuracy or completeness in the monitoring and verification process is not reduced as a result of the revision. Even more, the revision provides more details on accuracy of the meters installed and quality control procedures.

4 VALIDATION OPINION

TÜV SÜD has performed a validation of the revised Monitoring Plan of CDM Project 0332:

Ajbapur Sugar Complex Cogeneration Project

The review of the revised monitoring plan and the subsequent follow-up interviews have provided TÜV SÜD with sufficient evidence to determine the fulfilment of all stated criteria. In our opinion, the revised monitoring plan meets all relevant UNFCCC requirements for the CDM. Hence TÜV SÜD recommends the replacement of the monitoring plan of the registered PDD by the submitted revision.

Munich, 2007-09-11

Certification Body “climate and energy”
TÜV SÜD Industrie Service GmbH

Munich, 2007-09-11

Assessment Team Leader