Industrie Service

Choose certainty.
Add value.

Validation Report

Pacific Hydro Pty Ltd.

VALIDATION OF THE REVISED MONITORING PLAN OF THE REGISTERED CDM-PROJECT N^{O} 0089

VATURU AND WAINIKASOU HYDRO PROJECTS

FIJI

REPORT NO. 927374-RM

2007, May 15

TÜV SÜD Industrie Service GmbH

Carbon Management Service
Westendstr. 199 - 80686 Munich – GERMANY

Industrie Service

Report No.	Date of first issue	Revision No.	Date of this revision	Certificate No.
927374-RM	2007-05-15	0	-	-

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 Industrie Service GmbH Carbon Management Service Westendstr. 199 - 80686 Munich Federal Republic of Germany
Client:	**Project Site(s):**
Pacific Hydro Pty Ltd. 474 Flinders Street Melbourne Victoria 3000 Australia	Vaturu and Wainikasou Hydro Power Plants Fiji

Project Title: VATURU AND WAINIKASOU HYDRO PROJECTS

Applied Methodology / Version: AM0028 version 3	**Scope(s):** 5

Registered PDD Version:	**Revised Monitoring Plan:**
Registration Date: 2005-10-01 Starting Date of Crediting Period: 2005-06-01	Date of issuance: 2005-05-15
Assessment Team Leader:	**Further Assessment Team Members:**
Werner Betzenbichler	Klaus Nürnberger Bratin Roy

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.

Table of Contents Page

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 0089 with the project title:

Vaturu and Wainikasou Hydro Projects

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 (for further information see www.vvmanual.info), 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
Werner Betzenbichler	**ATL**	☑	☑	
Klaus Nürnberger	ATL	☑	☑	☑
Bratin Roy	GHG-A	☑	☑	☑

Werner Betzenbichler is head of the department Carbon Management Service of TÜV SÜD and head of the "Certification Body for Climate and Energy" and expert for conventional energy generation, renewable energy, energy expansion planning and familiar with the recent version of CDM and JI criteria as necessary for the implementation of Art. 6 and Art. 12 of the KP. Since 2000 he works in the international climate change and emission trading business as a verifier.

Klaus Nürnberger is head of the division energy certification at TÜV SÜD Industrie Service GmbH. In his position he is responsible for the implementation of verification and certifications processes for electricity production based on renewable sources. The division has assessed more than 600 plants and sites all over Europe in particular hydro power plants. He has received extensive training in the

CDM and JI validation and verification processes and participated already in several CDM and JI project assessments.

Bratin Roy is a lead auditor for quality, environment and occupational health and safety management system (according to ISO 9001, ISO 14001 and OHSAS 18001) and an auditor for CDM/JI projects at TÜV South Asia. He holds a master degree in environmental science. He is based in Pune, India. Mr. Roy worked for 8 years as a consultant, trainer and auditor in the field of quality, environment, energy, safety and sustainability management .He has received extensive training in the CDM validation and verification processes and has already participated in several CDM project assessments."

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. The assessment was correlated to the verification of the first monitoring plan

(see http://cdm.unfccc.int/Projects/DB/TUEV-SUED1124483924.62/iProcess/TUEV-SUED1166187925.02/view)

2.3 Follow-up Interviews

In the period of Jan 09 to 12, 2007 TÜV SÜD performed interviews on-site with project stakeholders in the context of the first verification as aforementioned. Further telephone conferences have been held with the responsible person (M Jenya Khvatsky) of Pacific Hydro in Melbourne 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

In the context of the first verification of the registered CDM activity TÜV SÜD realised that the frequency of recording electricity meter readings is not daily as described by the PDD but rather weekly (not with stringent regularity) and monthly respectively. Hence TÜV SÜD issued the following clarification request:

> *Clarification Request #1:*
>
> *As per Section D.3. Table 4 of PDD, the meter reading recording frequency is daily. Please explain, why the recording frequency is lowered?*

Consequently TÜV SÜD submitted a "Request for Deviation" in the context in order to ensure the validity of the first monitoring report. Additionally the project participants developed a revised monitoring plan forming the base of the assessment presented herewith.

TÜV SÜD considers the revised monitoring plan as acceptable and reasonable. There is no loss in information as the meter is giving an accumulative figure. In the worst case, i.e. in case the meter is not functioning and therefore is not accounting further electricity generation, the monitored production is lower than the real one. An overestimation can be excluded as result of performed plausibility checks and calibration records.

Consequently 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, quality assurance and quality control as given by the registered PDD.

4 VALIDATION OPINION

TÜV SÜD has performed a validation of the revised Monitoring Plan of CDM Project 0089:

Vaturu and Wainikasou Hydro Projects

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, 2007-05-15

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

Munich, 2007-05-15

Assessment Team Leader