## **ERM** Certification and Verification Services

2<sup>nd</sup> Floor, Exchequer Court 33 St Mary Axe London EC3A 8AA Telephone: +44 (0)20 3206 5281

Facsimile: +44 (0)20 3206 5442 E-mail: post@ermcvs.com

5 July 2013

**CDM Executive Board UNFCCC Secretariat** Martin-Luther-King-Strasse,8 D-53153 Bonn Germany

Dear Members,



Subject: Response to the Request to Review comments on the project titled "Small Hydro Power Project in Chamba, Himachal Pradesh" (Project Reference Number 7465).

With reference to the request for review comments on the "Small Hydro Power Project in Chamba, Himachal Pradesh" (6475), we wish to provide the following clarification/justification for your consideration.

Question: The DOE is requested to explain how it validated as "real actions" the inter office correspondence mentioning the CDM (dated on 04/12/2007 & 16/03/2009) and the requests for proposal (dated 02/04/2007) which did not result in any further action, given the fact that the PP did not formalize any CDM consulting contract until 04/09/2009, more than three years after the start date of the project activity. Please refer to paragraph 108 (b) of VVS version 02.0 & paragraphs 7 & 8 of EB62 Annex 13.

Response: In line with the paragraph 108 b) of VVS Version 02, it is to be assessed by the DOE if the PP has "Demonstrated that real and continuing actions were taken to secure CDM status for the project in parallel with its implementation".

It is to be noted that the project implementation faced problems right from the initial construction stage and the tunnelling work. The contractors (Trust House &Vinayak Construction) appointed for completion of tunnel work were not able to complete it and since tunnel activity being a major decisive factor in the project construction stage the project implementation was on hold till the issues in tunnel work were sorted out. The detailed reasons of delays in tunnelling work are explained in the FVR section 8.1.1.



The top management was updated on 04/12/2007 on the project implementation issues and the management suggested initiation of further steps for CDM registration work only after seeing visible progress in project implementation. This does not indicate that real efforts/actions on the CDM path were not being taken by the PP, but simply they Registered Office and were waiting to see concrete progress at the implementation side before finalising the  $\frac{Verification\ Services\ Limited}{2^{nd}\ Floor,\ Exchequer\ Court}$ CDM consultant contract. Prior to 04/12/2007 the offers were requested from various 33 St Mary Axe CDM consultants via invitation letter dated 02/04/2007 however the CDM consultant was not finalised due to above mentioned reasons.

It is to be noted that the project implementation faced major issues during the period April 2006 to December 2008. It was only when the contract was awarded to Sunrise Construction Company on 27 01/2009 that notable progress was made in the tunnelling work, and the top management was updated on the project implementation progress via inter office correspondence dated 16/03/2009. The top management therefore decided to reinitiate the CDM registration work which had been kept on hold due to project construction issues. Thus the request for proposal was sent out on 16/04/2009 to CDM consultants and the finalisation of the CDM contract with the firm Ernst & Young was done on 04/09/2009. It shows that once the project implementation was on track the PP has taken real actions and steps to secure CDM status for the project activity. The gaps in real action to secure CDM status as pointed out by the members are only due to the fact that project implementation was on hold.

ERM CVS has validated that the inter office correspondence mentioning the CDM (dated on 04/12/2007 & 16/03/2009) and the requests for proposal (dated 02/04/2007) can indeed be considered real actions, because of the intent of the steps taken, the fact that there is a clear timeline and sequence of events leading to ultimate CDM registration, and because the actions themselves were taken at the very highest levels of the organisation's management – and hence cannot be considered trivial or inconsequential steps. ERM CVS provides further information on the validation of each action as follows:

Event	Date	Validation Opinion and	Further justifications
		validation measures as reported	
		in FVR	
Offer for CDM	20 April 2005	This has been validated against	PP was in discussions with MITCON
consultancy		the offer letter/46/ from MITCON	on their offer and since they had
Services by		sent to Mr Kamath on	faced issues with project
MITCONfor prior		20/04/2005 and also with email	implementation they informed
CDM awareness		that has been sent to Mr. Kamath	MITCON on 12 December 2006/83/
		from MITCON Consultancy dated	which indicated that their proposal
		on 19/05/2005.	was under consideration and the
			contract would only be signed after
		The MITCON Consultants offer	the project implementation issues
		letter has been checked and it	are resolved in all aspects.
		mentions clearly in detail about	
		CDM and its benefits to the	
		project participant from the sales	
		of generated CERs. The offer	
		included providing CDM	
		Consultancy services by MITCON	
		to the PP. This has been validated	
		against the Offer letter of	
		MITCON consultancy services/46/	
		presented to the PP. The original	
		copy of the offer letter was	
		reviewed during the visit to PP's	
		main office.	

Meeting for review of hydro projects conducted with top management	23 & 24 February 2007	The inter office correspondence with the top management of the company (Chetan Mehra, Director, Mr.Kamath, Head of Power Division and others)/84/ in original has been checked and reviewed and it mentions clearly that progress made by Trust House in tunnel excavation was not satisfactory.	Head of Power Division, Mr.G.N.Kamath expressed in the meeting that although MITCON was shortlisted for carrying out the CDM consultancy work the decision to sign the contract was on hold due to uncertainty in project implementation. Mr.Chetan Mehra, Director, agreed to the above however also emphasized that signing of CDM contract is just a temporary hold and the project would need CDM to become viable.
Request for proposal/letter from PP dated 02 April 2007	02/04/2007	This is confirmed by the validation team through review of the letter sent by PP to the Headway Capital Advisors/42/.	It is to be noted that although the PP was facing major issues on the project implementation side, the PP had seriously considered the CDM registration of the project and hence requested proposals from Headway Capital Advisors. It was due to the uncertainty of the project completion issues/ timelines that the PP had not signed the CDM contract.
Meeting for review of hydro projects conducted with top management	14 & 16 August 2007	The inter office correspondence with the top management of the company (Chetan Mehra, Director, Mr.Kamath, Head of Power Division and others) /85/ in original has been checked and reviewed and it mentions clearly in detail about the reasons for delay in tunnel work by the contractor Trust House	The minutes of meeting noted that in view of contractors' inability to complete the tunnel work and if alternate contractor would not be found in time, there would be a need for re-assessment of project description, boundaries and costs.  Thus it would be premature to award a contract to CDM consultant at this stage. Head of Power Division, Mr.G.N.Kamath expressed in the meeting that although the proposal from Headway Capital Advisors dated 23/04/2007 is received it would be kept in abeyance till management would get greater clarity on project implementation issues.  Chetan Mehra, Director agreed to the above however emphasized that the company should start CDM relation activities as soon as they

			see some progress on
			constructional front.
Inter office correspondence discussing project implementation being on hold due to delay in tunnel work. The note also suggested initiating CDM registration work only after there is some visibility on project implementation.	04/12/2007	The inter office correspondence/20/ in original has been checked and reviewed it mentions clearly in detail about the reasons for delay in tunnel work.  This event was further confirmed from the review of project progress reports/44/ sent to HIMURJA which confirmed that the tunnel work was very much delayed due to different contractors abdicating the work in middle (Trust House, Vinayak Construction) and due to difficult topography of the site.  Hence it was communicated by the top management of PP to not finalize the CDM consultant until the project progress progressesfurther. This was also confirmed through interview of PP's top management/IV1/IV2/ and project engineers/IV3/IV4/.	In this meeting it was noted that project tunnelling work was not getting completed due to various contractors abdicating the work in the middle and also due to the complex topography of site. As stated earlier the project implementation issues were also verified by the state nodal agency HIMURJA responsible for monitoring of SHP projects.  This meeting also indicates that finalization of CDM contract was to be delayed and to be completed only after seeing noticeable progress on the construction. This confirms that top management still recognised the critical importance of CDM registration, however had just postponed the steps due to project implementation issues. The guideline requires PP to take real actions to pursue CDM however to be in parallel with project implementation and since the next stages of project implementation wereon hold due to the delays in tunnelling, the steps of CDM
Inter office	14 &15	The inter office correspondence	registration were also put on hold.  Head of Power Division enquired to
correspondence between the top management discussing progress made in tunnel work after appointing a new contractor for completion of tunnel work (Vinayak Construction)	March 2008	with the top management of the company (Chetan Mehra, Director, Mr.Kamath, Head of Power Division) /86/ in original has been checked and reviewed by the validation team.	the project team and top management if the appointment of CDM consultant could be initiated now that new contractor has been appointed. To this the General Manager projects confirmed that the new contractor performance was not yet satisfactory and hence further monitoring would be required before taking final decision. Chetan Mehra, Director accepted the views and decided to wait for few more months before

			finalization of CDM consultant contract.
Inter office correspondence between the top management discussing performance of the new contractor (Vinayak Construction) on tunnel activities	22 & 23 August 2008	The inter office correspondence with the top management of the company (Chetan Mehra, Director, Mr.Kamath, Head of Power Division) /87/ in original has been checked and reviewed by the validation team.	It was noted that the average progress of tunnel work is very slow (completion of only 240 meters in comparison to 700+ meters required) and it was noted that with current speed the tunnel work would span further for a year. Frequent stoppages due to poor quality equipment used by contractor for tunnel work were noted. It was noted in the minutes that there were considerable apprehensions on Vinayak Construction's financial and technical capabilities to complete the work.
			Chetan Mehra, Director suggested that signing of CDM contract to be done only after gaining full confidence that Vinayak Construction will successfully complete tunnel erection.
Inter office correspondence between the top management discussing progress made in tunnel work and overall project implementation. Decision taken to re-initiate the process for finalizing the CDM consultant and hence invite offers from consultants for CDM advisory services	16 March 2009	This has been validated with the inter office correspondence letter/25/ issued by Mr. G.N Kamath to Mr.ChetanMehra on 16 <sup>th</sup> March 2009 that advises to initiate CDM registration work after completion of tunnel work-Verified with the original copy of inter office correspondence	In this meeting with the top management it was decided to reinitiate the process for finalizing the CDM consultant as notable progress was seen on the project implementation side. Prior to this meeting the PP always kept in reach with CDM consultant to request for their offer/proposals as can be seen from the invitation letter dated 02/04/2007 quoted above.
Enquiry/bid sent	16 April 2009	Mail sent by PP to Zenith Energy,	

by PP to various		J M Environet (for this entity	
CDM consultants.		there were also telephonic	
	From April to	discussions), CTRAN Consulting	
Receipt of	July 2009	services. /68/69/79/	
quotation for CDM			
advisory services		This has been validated from the	
from various		offers received from Zenith	
consultants		Eenergy/68/, J M Environet /69/,	
		CTRAN Consulting Private Ltd/79/	
		, ,	
CDM consulting	04	This has been validated against	
contract with	September	the Engagement letter for CDM	
Ernst & Young	2009	Advisory services issued by	
		Weizmann Limited to Ernst &	
		Young dated on 04 September	
		2009/38. The letter mentions	
		that it has appointed Ernst &	
		Young for GHG abatement	
		projects: Batot Hydro Power	
		Project It has been also validated	
		against the Addendum letter to	
		the initial engagement letter	
		issued by Weizmann Limited to	
		Ernst & Young dated on 12 May	
		2010/39/ ERM CVS evaluated	
		both the	
		engagement/appointment letter	
		and found it to be acceptable.	
		·	

Therefore in summary, although the CDM consultancy contract was not finally signed until 2009, this is explained by the timeline of implementation of the project, which suffered severe and unforeseen delays. Despite this, the senior management level of the PP were actively engaged in pursuing the CDM registration of the project, and the decision to delay signing of a CDM consulting contract was an active decision and was not due to any deprioritisation of CDM registration efforts or lack of willingness to pursue CDM registration. The actions taken do demonstrate real commitment by the most senior level of the PP, and hence are considered real actions.

**Question**: The DOE is requested to explain how it validated that the monitoring plan in the PDD is in compliance with the applicable methodology. In particular, monitoring of "Quantity of net electricity supplied to the grid in year y" in compliance with the requirements of the methodology. Please refer to AMS.I D, version 17, Table 1 & paragraph 132 (a) (ii) of VVS version 02.0.

## Response:

ERM CVS confirms that the description of monitoring plan contains all necessary parameters and also the description of parameters is in line with the requirements of applied methodology and tool. Monitoring section of the FVR now includes the validation steps taken by ERM CVS to assess the compliance of description of monitoring plan and clearly refers the supporting evidence used to check the compliance of the monitoring arrangements. FVR is now in line with para 132 (a) (ii) of VVS version 02.0. For the project case, "EGfacility,y" is the only parameter that is required to be monitored. This value is the net generation value sourced from the monthly Joint Meter Reading (JMR) reports. As the joint meter reading (JMR) taken at the substation measures electricity exported & imported not only by the project activity but also by projects implemented by other PPs, an apportioning procedure is followed to estimate the Quantity of net electricity supplied to the grid for the particular period by the project activity. Other sub parameters like generation of other projects, line losses etc are also monitored by respective entities and these are documented in the apportioning calculation Annexure attached to Joint Meter Reading Report. This JMR report and attached calculations are verified by HPSEB officials and the billing happens on this report only. The JMR report gives the net generation for the project and hence "EGfacility,y" is the only parameter that is required to be monitored and which falls within PP's control. The number of projects/entities/losses for other projects which are attached to the substation where project generation is measured may change however the calculation procedure remains the same and the results of the calculations are always verified by HPSEB.

ERM CVS therefore confirms that the parameter "EGfacility,y" is being monitored in line with the requirements of Table 1 of the methodology.

A detail of validation measures for the apportioning mechanism is provided in the response of the next query.

The value for the parameter "EGfacility,y" is the summation of all monthly values generated based upon the joint meter reading reports (JMR) issued by Himachal Pradesh State Electricity Board (HPSEB). The meter reading of the electricity exported to the grid is jointly taken by the representatives of the Project Participant and HPSEB once in a month at sub-station Jarangla. Data collected can be cross-checked with the sales receipts. The parameter is continuously monitored, hourly measured and monthly recorded with the help of main and check meters installed at the feeder 1 and feeder 2 of the Jarangla sub-station to which the project is connected. Thus the parameter is monitored in line with requirements of the Table of the applied methodology and the applied tool.

During site visit of ERM CVS team to Jarangala Sub-station, energy meters were inspected which will be used as monitoring equipment. At sub-station they had maintained daily monitoring report on paper. It has been confirmed by ERM CVS during the site visit and interaction with sub-station representative about the data monitoring and measurement arrangements. This is clearly reported in FVR as well. However the FVR is found to be missed out to mention that "apportioning" would be followed before deriving the net-generation estimates and this is corrected now in the revised FVR.

PDD table section B.7.1.1 is also revised and the section "source of data" is now changed to "monthly values sourced from joint meter reading reports".

**Question**: The DOE is requested to explain how it validated that the means of implementation of the monitoring plan are sufficient to ensure that the emission reductions resulting from the proposed project can be reported ex post and verified. In particular, the DOE is requested to explain how it validated the adequacy of the apportioning method. Please refer to paragraph 132 (b) (ii) of VVS version 02.0.

**Response:** Section 9.2 of the FVR is now revised to explain the steps carried out by DOE to validate the monitoring arrangements described in the monitoring plan including the appropriateness of the apportioning method. Also refer the detailed response given under question 2 above.

## **Brief overview of apportioning procedure:**

As the joint meter reading (JMR) taken at the 33/11 kV Jarangla substation (both at feeder-1 & feeder-2) measures electricity exported & imported not only by the project activity but also by projects

implemented by other PP's, an apportioning procedure is followed to estimate the Quantity of net electricity supplied to the grid for the particular period by the project activity.

This calculation is attached as an Annexure to the Joint Meter Reading (JMR) Report and is verified and issued by HPSEB officials and based on which they issue the JMR report and PP performs the invoicing/billing based on this value only. Hence the final source of net generation value is JMR report issued by HPSEB. This was confirmed by the validation team through review of JMRs for the month of June & July 2012/28/29/ and through the interviews conducted with substation operator/IV6/ and Project Manager of PP/IV3/.

The apportioning method followed by the PP and other project entity to derive their respective net generation quantities is verified by the validation team. The total generation at the feeder by all connected projects is measured by the set of main and check meters installed at HPSEB's Jarangla substation. Generation of individual projects is measured by independent meters installed at the power house of each generating project as well as the common pooling station. The difference between the meter at Jarangla and the site meters is the line loss to be shared between individual projects, further the percentage share of of loss for each project is calculated based on the project generation and the length of line to the sub-station which would help to calculate their respective line losses. Thus the net energy generation quantities are derived for each project and these calculations are verified by the respective project representatives and signed by them, and attached to the Joint Meter Reading (JMR) report which is verified by officials of HPSEB. Thus the internal calculations for the project can be verified through JMR attachments. The JMR, internal calculation supporting Annexes for the month of June & July 2012/28/29/ were reviewed by the validation team and found to be adequate and clearly documenting the calculation

## procedures.

During site visit of ERM CVS team to Jarangala Sub-station, energy meters were inspected which will be used as monitoring equipment. At sub-station they had maintained daily monitoring report on paper. It has been confirmed by ERM CVS during the site visit and interaction with sub-station representative about the data monitoring and measurement arrangements. This is clearly reported in FVR as well. However the FVR is found to be missed out to mention that "apportioning" would be followed before deriving the net-generation estimates and this is corrected now in the revised FVR.

PDD section B.7.3 is now revised to include further explanation of the apportioning procedure. Monitoring section of FVR is now revised to include the validation steps followed to assess the compliance of description of monitoring plan documented in the PDD.

aaAs explained above, ERM CVS has validated, based on the VVS version 02.0, that this project meets the monitoring requirements of AMS 1.D and that the relevant CDM requirements for demonstrating 'real actions' have been demonstrated. We would be happy to provide further information as needed.

Yours sincerely,

Melanie Eddis

Head of Climate Change

**ERM Certification and Verifcation Services Ltd**