Voluntary Carbon Standard Version 2007
Verification Report Template

19 November 2007

Verification Report:

Name of Verification company:	Date of the issue:
Bureau Veritas Holdings SAS	14/11/20092
Report Title:	**Approved by:**
Second Verification Report of '300 MW Hydro Power Project of JHPL'.	Mr Dinesh Shetty
Client:	**Project Title:**
Jai Prakash Hydro Power Limited (JHPL)	300 MW Hydro Power Project of JHPL.

Summary:

Bureau Veritas Certification has conducted the second verification of the '300 MW Hydro Power Project of JHPL" project of Jai Prakash Hydro Limited located at Kuppa in Himachal Pradesh State, India on the basis of Voluntary Carbon Standard 2007.

The verification scope is defined as a periodic independent review and ex post determination by the Designated Operational Entity of the monitored reductions in GHG emissions during defined verification period, and consisted of the following three phases: i) desk review of the project design and the baseline and monitoring plan; ii) follow-up interviews with project stakeholders; iii) resolution of outstanding issues and the issuance of the final verification report and opinion. The overall verification, from Contract Review to Verification Report & Opinion, was conducted using Bureau Veritas Certification internal procedures.

In summary, Bureau Veritas Certification confirms that the project is implemented as planned and described in validated and registered project design documents. Installed equipment being essential for generating emission reduction runs reliably and is calibrated appropriately. The monitoring system is in place and the project is generating GHG emission reductions. The GHG emission reduction is calculated without material misstatements.

Please treat our earlier versions of this report as null and void.

Work carried out by:	Number of pages:

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Abbreviations

Ver	Voluntary Emission Reductions
BMS	Bureau Veritas Certification's Management System
CAR	Corrective Action Request
FAR	Forward Action Request
CO_2	Carbon Dioxide
tCO_2	Tonnes of Carbon Dioxide
DOE	Designated Operational Entity
DG	Diesel Generator
DR	Document Review
GHG	Green House Gases
I	Interview
IETA	International Emissions Trading Association
MV	Means of Verification
MP	Monitoring Plan
MR	Monitoring report
NEWNE	North-East-West-North-East
NGO	Non Governmental Organisation
PD	Project Document
PP	Project participant
UNFCCC	United Nations Framework Convention for Climate Change
MU	Million Units
MW	Megawatt
HPSEB	Himachal Pradesh State Electricity Board.
PPA	Power Purchase agreement
JMR	Joint Meter Reading
VR	Verification report

1 Introduction

1.1 Objective

Verification is the periodic independent review and ex-post determination by the verifier of the monitored reductions in GHG emissions during defined verification period.

This is the second verification of the project activity. The objective of this second verification is to verify that the project is implemented as planned, to confirm that the monitoring system is in place and fully functional, and to assure that the project has generated verifiable emission reductions.

The verification shall consider both qualitative and quantitative information on emission reductions. Quantitative data comprises the monitoring reports submitted by the project entity to the verifier. Qualitative data comprises information on internal management controls, calculation procedures, and procedures for transfer, frequency of emission reports, review and internal audit of calculations/data transfers.

1.2 Scope and Criteria

The verification scope is defined as an independent and objective review of the VCS project design document, the project's baseline study and monitoring plan, including the monitored data and other relevant documents. The verification follows VCS 2007 criteria

The verification is not meant to provide any consulting towards the Client. However, stated requests for forward actions and/or corrective actions may provide input for improvement of the project monitoring towards reductions in the GHG emissions.

The verification team was provided with a monitoring report, covering the period 01st October 2008 to 28th February 2009. . Based on this documentation, a document review and an on-site audit (on 16/09/2009) was conducted. The Monitoring Report – Version 1.1, dated 14/11/2009 covering the period 01st October 2008 to 28th February 2009 serves as the basis for the assessment presented herewith.

1.3 VCS project Description

The project is a run-of-the-river hydro-electric power plant with an installed capacity of 300 MW. The diversion barrage of the project is located across river Baspa, at Kuppa in Himachal Pradesh. The power house is located at Karcham village in Kinnaur District. The project activity is an initiative of Jaiprakash Hydro Power Limited (JHPL), a part of the Jaypee Group. Jaypee is a well-known business group of India and had entered into agreement with State Government of Himachal Pradesh to implement the project. The purpose of the project activity is to generate

electricity using renewable hydro energy and sell it to Himachal Pradesh State Electricity Board (HPSEB).

1.4 Level of assurance

Based on the process and procedures conducted, it can be concluded that the GHG assertion

- is materially correct and is a fair representation of GHG data and information, and
- has been prepared in accordance with the VCS 2007 standard.

At the beginning of the verification process related to the project's GHG assertion, the level of assurance was sought by the verification team and the client.

The verification team considers the assurance level as 'limited' since some of the data used (E.g Emission Factors) in the verification process are from the publicly available databases such as the CEA database for emission factor, for which detailed testing of the GHG assertions is beyond the domain of the project proponent, stake holders and the verification team.

2 Methodology

The verification included a desk review and field visit in September 2009 including discussions and interviews with the project proponents and their consultants.

The verification protocol utilized for this verification was as per the requirement defined in the VCS protocol. In order to ensure transparency, a verification protocol is used as part of the verification. The protocol provides to the verification team, in a transparent manner, the criteria (requirements), means of verification and the results from verifying the identified criteria.

The verification protocol serves the following purposes:

- It organises, details and clarifies the requirements the project is expected to meet; and
- it ensures a transparent verification process wherein the verifier will document how a particular requirement has been verified and the result of the verification.

The verification protocol is summarized in this report as Table 1 and 2..

3 Verification Findings

3.1 Remaining issues, including any material discrepancy, from previous validation:

There were no remaining issues or material discrepancy from the previous verification.

3.2 Project Implementation

The implementation of the project activity was observed to be conforming to the description of the VCS Project Document.

3.3 Completeness of Monitoring

The verification report is prepared based on the findings during the site visit and the monitoring report submitted by the Project Proponent, Version 1.1 dated 14/11/2009. The monitoring methodology used for the project activity is as per the methodology ACM 0002, Version 8 dated 28.11.2008. The title of the monitoring methodology is "Consolidated monitoring methodology for grid-connected electricity generation from renewable sources."

The parameter that is monitored for calculation of emission reductions is the net electricity supplied to the grid by the project activity.

Emission Reductions :
The following algorithm calculates the emission reductions,

– $ERy = BEy - PEy1 - PEy2 - Pey3 - Ly$

The emission factor is calculated based on the "Tool to calculate the emission factor for an electricity system" Version 1.1, as indicated in the approved methodology ACM 0002, Version 8. The value of the grid emission factor, utilized for the project activity, is based on the version 4 of the CEA (Central Electricity Authority) CO_2 database for the NEWNE grid since the project activity would supply electricity to this grid.

The grid emission factor, calculated on the basis of the combined margin is 0.805 tCO2/MWh and is fixed ex-ante.

The electricity generation is monitored at the sub-station at Jhakri, wherein there are two transmission lines connected to the project activity. The sub-station is owned and operated by the HPSEB. Each of these transmission lines consists of a main meter and a check meter. Apart from this, there is a set of spare main and check meters, which can replace the meters in case of any faults observed. . The meters are tri-vector meters of 0.2 accuracy class. The meters have undergone an annual calibration, conducted by the Power Grid Corporation of India. Results of the calibration carried out confirm that the meters were functioning within the limits of their accuracy

class. The calibration certificates were verified and found to be correct and reliable.

In addition, the readings of main and check meters for each of the 6 months of the verification period were compared with each other. The percentage difference between these readings was also well within the maximum accuracy limit of the meters.

The verification team therefore confirmed that the readings of the main meter used for the purpose of emission reduction calculations were within the limits of maximum error that could be applied to the meters and hence the meter readings were accurate and could be relied upon.

The net electricity exported to the grid is based on the monthly readings (JMR's) taken by the officials of the State Electricity Board along-with representatives of the project participant (PP). Invoices are raised by the PP based on these JMR readings.

Apart from this system of monitoring the electricity exported to the grid, there is also a monitoring system in the control room of the powerhouse of the project activity wherein monitoring of the data on a real time basis is also done.

The monitoring period is from 01st October 2008 to 28th February 2009 , both days inclusive, as indicated in the monitoring report.

Baseline emissions :
The net electricity exported by the project activity was monitored by means of metering arrangements on the 400 kV lines from the project activity site to the Jhakri sub-station. The metering arrangement is capable of monitoring the exports as well as imports from and to the project activity. The difference between the total exports and the total imports is the net electricity export by the project activity to the grid.

The net electricity export data was also cross-checked with the invoices for energy sale raised by the project participant for the respective months of the verification period. The net export values taken from the JMR's and used for the emission reduction calculations, it was observed, were either the same or less than the values of delivered energy claimed in the invoices raised by the project participant.

Project Emissions :

The following sources of Project emissions in the project activity were monitored by the project participant:

a. Operation of Diesel Generator (DG) sets (2 DG sets of 625 kVA each) at site. (PE_{y1})
Monitoring of the diesel consumed in these DG sets is done on a daily basis. The consumption of diesel is recorded in a daily logbook which is common for both the DG sets. The diesel tanks for the DG sets have been provided with a graduated level tube on which the start and end level readings of the diesel inside the tank can be taken. The consumption figure is arrived at by taking the difference between the initial and final level readings. The project emissions for the verification period have been calculated based on the quantity of diesel consumed (in litres) , density of diesel and the emission factor as per the IPCC default values.

b. Electricity imports from the grid to meet the daily electricity requirements at the project site. (PE_{y2})
Electricity is imported into the project activity through the 22 kV line and goes towards meeting the daily power needs for the project activity. The metering of this electricity import is done through a separate energy meter which is under the control of the HPSEB and is maintained by them. The project participant produced a letter from HPSEB in which the said agency has certified that the calibration and testing of the meter had been carried out periodically by them. Since the HPSEB is a reliable Government undertaking, its written assurance in this regard has been considered as authentic by the verification team.

c. Leakage of SF_6 gas (PE_{y3})
There is a storage of SF6 at site, in cylinders (5 no.s ofcylinders in total, of which 4 cylinders are 38.4 kg each and the 5th cylinder weighs 590 kgs), which is used as top-up material in the switchgear assembly, in case of any loss of SF6. It is only in the event of leakage of the SF_6 gas that the stored SF_6 would be needed to top up the quantity leaked. The project participant has regularly inspected the pressure of SF_6 gas in the feeders, breakers, and bays and also maintained records of the same. For the purpose of monitoring the quantity of SF_6 gas that could be required for top up filling, an electronic balance has also been procured, which can measure the weight of the 5 SF_6 cylinders. From the monthly records of SF_6 gas pressure monitoring and the records of weighment of the SF_6 gas cylinders it was observed by the verification team that no abnormal situations of SF_6 pressure drop necessitating top up filling had arisen during the verification period. Therefore, it could be confirmed that there had been no leakage of SF_6 gas during this period and hence the project emissions PE_{y3} due to SF_6 leakage were Nil. The verification team found from records maintained that the monitoring instruments that were used,

viz., the digital pressure indicator (DPI) and the electronic weighing balance had been calibrated by the project participant at frequency intervals in accordance with those stated in the monitoring plan outlined in the original validated project design documents for the project activity.

Overall, the verification team confirms that all the parameters necessary for the monitoring of baseline and project emissions have been monitored by the project participant during the verification period. The monitoring of these parameters has been carried out as per the requirements of the monitoring specified in the methodology chosen for this project. Also, that the data obtained as a result of the monitoring is accurate and reliable for the purpose of a correct computation of the emission reductions.

3.4 Accuracy of Emission Reduction Calculations

Project participant provided the spreadsheet used for calculating the emission reductions, project emissions and leakage, including the algorithms used in the calculations. The spreadsheet contains a detailed calculation of the baseline emissions , project emissions and leakage emissions. The latter were Nil.

While going through the values of electricity imports used in the spreadsheet for calculating the project emissions PE_{y2}, the verification team came across a serious error. The values of imports which actually should have been in kWh had been erroneously considered as if in 'MWh'. As a result, the values considered had been reduced by a factor of 1000. Though apparently as a result of oversight, this had resulted in a gross underestimation of the energy imports. A corrective action request (CAR-1) was raised by the verification team, requiring the rectification of this error. The project participant thereafter corrected all the values of energy imports for the entire period from Ist October 2008 to 28th February 2009. The validation team found that a similar error had also occurred at the time of the previous verification. The imports considered for the period 1st January 2007 to 30th September 2008 were only 38985 kWh, which actually should have been 38985000 kWh. The difference (i.e. 38985000 – 38985 = 38946015 kWh) was therefore adjusted in the current verification period and the value of imports was increased to that extent. Correspondingly, the value of project emissions PE_{y2} which had been computed as 31.38 tCO_2 went up by 31,352 tCO_2.

The default data used in the monitoring calculations is the grid emission factor. The value of the grid emission factor 0.805 $tCO_{2e,}$ fixed ex-ante for the project activity, is taken from the version 4 of

the publicly available CO_2 database of the Central Electricity Authority (CEA) and the same is considered to be appropriate by the verification team.

3.5 Quality of Evidence to Determine Emission Reductions

The critical parameters used for the determination of emission reductions are the Joint Meter Readings (JMRs) for determining the power export to the grid, project emissions due to the use of diesel for operation of the Diesel Generator sets and the electricity imports for use at the project site to meet the daily electricity requirements and also the project emissions owing to leakage due to the use of SF6.

It was observed that the earliest recorded data pertaining to the monitoring of probable SF_6 loss dates back to 16/03/2009, which date comes after the end of the current verification period. For the period from 1st October 2008 to 16th March 2009, the monthly records of alarm conditions due to pressure drop of SF_6 gas in the breaker, feeder or bays indicated that no abnormal conditions had arisen during that period. On the basis of these records , it was concluded by the verification team that the available evidence related to monitoring of SF_6 gas leakage was sufficient for the purpose of estimation of the project emissions occurred.

The data pertaining to the above parameters are maintained in identified records for the entire monitoring period. All the data is in compliance with the figures stated in the monitoring report.

3.6 Management and Operational System

The organizational structure includes site shift-in-charges who are involved in the day to day operations of the plant. They are also responsible for the preparation of daily reports. Site supervisors are responsible for checking the reliability of data and also monthly report preparation. Staff (Officers & Technicians) at the Power plant were found to be competent. All the collated data are reviewed by the senior management at site and also by the top management at Head Office.

4 Verification conclusion

The verification scope is as an independent and objective review of the VCS project description document, the project's baseline study and monitoring plan and other relevant documents. The review is to verify the implementation of the monitoring plan as defined in the VCS PD.
The period for the verification is from 01st October 2008 to 28th February 2009 .

The verification of the monitoring data indicates the total amount of emission reductions and the amount of emission reduction for the monitoring period is 146420 tCO2e.
The calculations of emission reductions are found to be correct. The baseline for the northern (NEWNE) grid has been taken for arriving at emission reductions due to the project activity. The grid emission factor of 0.805 tCO_2/MWh was found to be correct.
Appropriate procedures for maintaining the confidentiality and safe custody of the validation or verification documentation and for retaining them for a period sufficient to meet the needs of the client, the responsible parties, the GHG programmes to which they subscribe, and in accordance with legal and professional requirements of record retention have been established.
The verification team confirms that the project is implemented as planned and described in the VCS PD. The reporting procedures reflect the content of the monitoring plan. The monitoring mechanism is effective and reliable. The reported data are accurate and correct based on all the records provided to the verification team during the verification. The installed equipment being essential for generating the emission reductions run reliably and the monitoring equipments are calibrated appropriately.

Reporting period: From 01st October 2008 to 28th February 2009

Verified emission in the above reporting period:

Project emissions	7467	$tCO_{2equivalents}$ (VCUs)
Project emissions to be adjusted for the previous verification period	31352	$tCO_{2equivalent}$ (VCU's)
Baseline emissions	185238	$tCO_{2equivalents}$ (VCUs)
Emission reductions	146420	$tCO_{2equivalents}$ (VCUs)

Dinesh Shetty
Local Product Manager

Verification Protocol

TABLE 1 VERIFICATION REQUIREMENTS

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
1 Project implementation in accordance with the registered project design document					
It is assessed if the VCS project activity has been implemented and operated as per the registered PD					
a Are all physical features of the proposed VCS project activity, proposed in the registered VCS-PD, in place?			Findings of the on-site visit to JP Hydro project site, Baspa-II at Karcham. H.P., on 16th Sep 2009 by the verification team are that the project activity was implemented in line with the registered VCS-PD of the project activity with regard to physical features of the project activity such as technology, project equipment, and monitoring and measuring equipment. Project is in operation producing power exporting to the Naptha Jhakri power grid.	OK	OK
b Have the project participants operated the proposed VCS project activity as per the registered VCS- PD?			Yes. PP is operating the VCS project activity as per the registered PD, .	OK	OK
c Is the proposed VCS project implemented against the description in the VCS-PD?			Yes.	OK	OK
d Was an on-site visit conducted?			Site visit conducted on 16/09/2009 by a two member team.	OK	OK
e If not, justify the rationale of the decision.			Not applicable	OK	OK
2 Compliance of the monitoring plan with the					

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
monitoring methodology					
It Is assessed if the monitoring plan of the proposed VCS project activity is in accordance with the applied methodology					
a Is the validated monitoring plan in accordance with the approved methodology applied by the proposed VCS project activity?			Yes. Monitoring plan of the registered project activity is inline with approved methodology ACM 002, version 8.	OK	OK
b If no, was a request for revision of the monitoring plan was done? (The DOE may request for revision of the monitoring plan covering the monitoring period under verification, for approval by the Board)			Not applicable	OK	OK
c Are there any monitoring aspects of the project activity that are not specified in the methodology, particularly in the case of small-scale methodologies (e.g. additional monitoring parameters, monitoring frequency and calibration frequency)?			The project participant has included, in the monitoring plan, the following parameters to be monitored. 1) Q_{SF6} –Quantity of SF_6 loss during the year 2) $P_{BAY\ VT}$, $P_{BREAKER}$ & P_{feeder} : Pressure of SF_6 gas in the breaker, bay and feeder 3) Q_{diesel} –Quantity of diesel consumed in the running of D.G. sets 4) $E_{22\ kV}$ – Electricity imports from the 22kV line These parameters, although not specified by the methodology for the project activity, were required to be monitored by the project participant in order to calculate the emissions arising as a result of the project activity.	OK	OK
3 Compliance of monitoring with the monitoring					

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
plan					
It is assessed if monitoring of reductions in GHG emissions to result from the proposed VCS project activity is implemented in accordance with the monitoring plan contained in the registered VCS-PD or the accepted revised monitoring plan[Error! Bookmark not defined.].					
a Have the monitoring plan and the applied methodology been properly implemented and followed by the project participants?			Monitoring plan of the registered VCS-PD for the project activity has been applied throughout the monitoring period, i.e. from 01/10/2008to 28/02/2009 All the parameters were monitored as per the plan.	OK	OK
b Have all parameters stated in the monitoring plan, the applied methodology and relevant VCS Executive Board decisions been sufficiently monitored and updated as applicable, including:					
i Project emission parameters?			Yes. The following parameters are related to the calculation of project emissions : 1) Electricity imported from 22 KV line during the monitoring period. 2)Quantity of SF6 gas loss during the monitoring period and the associated parameters of SF_6 gas pressure in the breakers, bays and feeders of the electricity system 3) Quantity of diesel consumed These parameters had been monitored during the monitoring period. The imports of electricity by the project activity from the grid at the 400 kV grid	OK	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			connection point, which would be related to the project emissions, were also accounted for in the monitoring of the net generation parameter EG_y , which is basically the difference between the gross exports (to the 400 kV grid) and the imports (from the 400 kV grid)		
ii Baseline emission parameters?			Yes. Power exported from the project acttivity to the grid is being monitored through JMRs sheets jointly signed by the PP and HPSEB representatives on monthly basis.	OK	OK
iii Leakage parameters?			There was no leakage as a result of the project activity, hence this is not applicable.	OK	OK
iv Management and operational system: the responsibilities and authorities for monitoring and reporting are in accordance with the responsibilities and authorities stated in the monitoring plan?			The management and operational staff structure assigned towards performing duties at the project activity site, is in accordance with that envisaged in the VCS-PD monitoring plan. The personnel interviewed were having adequate knowledge and experience in the management and operations of the power plant.	OK	OK
c Is the accuracy of equipment used for monitoring in accordance with the relevant guidance provided by the VCS Board and are equipment controlled and calibrated in accordance with the monitoring plan?			Main meters at the Jhakri sub-station (on which the energy export readings are based) and check meters are of 0.2s accuracy class. The accuracy of meters is in line with the validated monitoring plan of the registered VCS-PD of the project activity.	OK	OK
i Are monitoring results consistently reccorded as per approved frequency?			The monitoring parameters in the project activity were found recorded in the following manner : 1) EG_y : monthly 2) Qdiesel : daily recording (the daily recordings for a month together present a monthly record of the diesel consumption	CL-1	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			3) E22 kV : monthly a) It was observed that there were no recorded readings of the quantity of SF6 loss during the monitoring period from 01/10/08 to 28/02/2009. The earliest recorded data is of date 16/03/2009. The project participant needs to clarify how it was ascertained that there was no loss of SF6 during this period. b) Also, it is seen that the monitoring plan in the VCS-PD requires monthly recording of the SF6 gas pressure in the breaker, bay and feeders. However, these monthly records were not available at the time of the site visit.		

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
ii Have quality assurance and quality control procedures been applied in accordance with the monitoring plan monitoring plan?			The QA/QC procedures in the case of this project activity mainly relate to the use of measuring instruments of accuracy as specified in the validated monitoring plan of the VCS-PD and the periodic calibration of such instruments as per the frequency stated in the monitoring plan. The same was found to be followed by the project participant in respect of the monitored parameters of $EG_{y,}$ $Q_{diesel,}$ $Q_{SF6,}$ $P_{breaker,}$ $P_{bay\ VT}$ and $P_{feeder.}$ For all these parameters, measuring instruments were used which were of the same accuracy as stated in the monitoring plan. The calibration records of the instruments were checked and it was found that the said instruments had been calibrated on a regular basis as per the frequency in the monitoring plan. The calibration records also indicated that the error in the instruments was within the permissible limits of accuracy stipulated by the accuracy class or specification of the individual instrument. The parameter $E_{22\ kV}$ is based on the electricity import from HPSEB's 22 kV line and is monitored by an energy meter under the control of the HPSEB. This meter is calibrated by HPSEB.	OK	OK
4 Assessment of data and calculation of greenhouse gas emission reductions					
It is assessed if GHG emission reductions achieved by / resulting from the proposed CDM project activity are calculated applying the selected methodology					

	CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
a	Is a complete set of data for the specified monitoring period is available? (If no, i.e., only partial data are available because activity levels or non-activity parameters have not been monitored in accordance with the registered monitoring plan, the DOE shall opt to either make the most conservative assumption theoretically possible in finalizing the verification report, or raise a request for deviation if appropriate).			A complete set of data for the monitoring period from 01/10/2008 to 28/02/2009 was available for the purpose of the verification of emission reductions achieved by the project activity.	OK	OK
b	Has information provided in the monitoring report been cross-checked with other sources such as plant log books, inventories, purchase records, laboratory analysis?			Although alternate sources of information were not available for all of the information from the monitoring report, the cross-checking of some of that information was carried out. E.g. 1) Comparison of main meter and check meter readings for the energy exports/imports for each month was done. The difference between the two readings was observed to be within the meter accuracy class limits of 0.2%, which confirmed the results of the meter calibration reports 2) Monthly records of diesel consumed by the two D.G. sets were provided by the project participant and were checked to confirm the diesel consumption figures.	OK	OK
c	Have calculations of baseline emissions, proposed CDM project activity emissions and leakage, as appropriate, been carried out in accordance with the formulae and methods described in the monitoring plan and the applied methodology document?			All the calculations are inline with the registered PDD document of project activity and the calculations done are correct. But in calculating the project emissions due to import of grid electricity from the 22kV HPSEB line for the project sites at	CAR-1	OK

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			Sholtu, power house and the Kuppa barrage, the project participant has taken the values to be in kWh whereas in fact, the same should be in MWh. This has resulted in an error by a factor of 1000. The actual figure for electricity import should therefore be 1000 times of the value considered in the calculation.		
d Have any assumptions used in emission calculations been justified?			No assumptions.other than already made at the time of the project validation, were made in calculating the emission reductions. The value of emission factor for the NEWNE grid, used for calculating the baseline emissions, was also the same, viz., 0.805 tCO_2/MWh	OK	OK
e Have appropriate emission factors, IPCC default values and other reference values been correctly applied?			Yes. The values of emission factors and IPCC data is the same as in the registered VCS-PD. There is no change in the same.	OK	OK

TABLE 2 RESOLUTION OF CORRECTIVE ACTION / FORWARD ACTION / CLARIFICATION REQUESTS.

Draft report clarifications and corrective action requests by verification team	Reference to checklist question in Periodic Verification Checklist	Summary of project owner response	Verification team conclusion
CAR-1 in calculating the project emissions due to import of grid electricity from the 22kV HPSEB line for the project sites at Sholtu, power house and the Kuppa barrage, the project participant has taken the values to be in kWh whereas in fact, the same should be in MWh. This has resulted in an error by a factor of 1000. The actual figure for electricity import should therefore be 1000 times of the value considered in the calculation.	4.c	The project emissions from the 22kV HPSEB line are corrected in the revised Monitoring report. The same is corrected from the last verification period (from Jan 07 till Sept 08) also in the current monitoring report (from Oct 08 till Feb 09).	The error has been rectified in the monitoring report and emission reduction calculation sheet. A similar error had taken place in the last verification also. The project emissions corresponding to the number of units of electricity that were not considered during the last verification (31351 tCO_2) have been adjusted in the emission reduction calculations in the current verification and the number of VER's claimed has reduced to that extent. Since the error stands rectified, this corrective action request was closed.
CL-1 a) It was observed that there were no recorded readings of the quantity of SF6 loss during the monitoring period from 01/10/08 to 28/02/2009.	3-c (i)	A) The PP maintains monthly records at the site of SF6 pressure parameter to account for any losses or abnormalities.	a) The daily monitoring reports of SF_6 gas pressure maintained by the project participant indicated that there was no alarm indication

Draft report clarifications and corrective action requests by verification team	Reference to checklist question in Periodic Verification Checklist	Summary of project owner response	Verification team conclusion
The earliest recorded data is of date 16/03/2009. The project participant needs to clarify how it was ascertained that there was no loss of SF6 during this period. b) Also, it is seen that the monitoring plan in the VCS-PD requires monthly recording of the SF6 gas pressure in the breaker, bay and feeders. However, these monthly records were not available at the time of the site visit		In case of any leakage or any abnormality, the alarm trips on the SCADA system and the PP records the pressure in the various units. The tripping of the alarm is directly related to the pressure conditions of the breaker, bay and feeders at the respective pressures as given under Annex – I of the report. This is the minimum pressure which must be maintained in the compartments to prevent the alarm from tripping and thus leakage of SF6. If the pressure limits are not crossed in the individual compartments then the alarm does not trip and there is no recording of data at the site. It has been observed that no leakage took place between 01/10/08 to 28/02/09. This is evidenced by the monthly statements maintained at the site. The "*no*" in the statement indicates that there was no tripping of alarm on a particular day thus implying that the minimum pressure was maintained in the individual compartments.	due to low gas pressure in the compartments Unit 1,2, & 3, bus coupler and feeders. Thus, there were no instances recorded when there could have been a possibility of leakage of SF_6 gas. The monthly records were available from the first month of the monitoring period, i.e. October 2008 onwards. Even though the first weighing record of SF_6 cylinders is available no earlier than 16/03/2009 , the monitoring records referred to above are sufficient to conclude whether or not leakage of SF_6 had taken place. b) The monthly monitoring records of SF_6 gas pressure were later provided to the verification team. The records have been maintained on a daily basis for each month of the verification period.

Draft report clarifications and corrective action requests by verification team	Reference to checklist question in Periodic Verification Checklist	Summary of project owner response	Verification team conclusion
		B) The monthly monitoring records of the SF6 gas pressure in the breaker, bay and feeders is provided to DOE. In addition, the PP records the pressure readings annually as recommended by M/s Areva, the manufacturer of the equipment, a set of which is also provided to DOE.	Since the required data for the purpose of verification of emission reductions claim was available, the clarification request was closed.