



HYDROELECTRIC PROJECT IN KINNAUR DISTRICT IN HIMACHAL PRADESH



Document Prepared By

LGAI Technological Center S.A. (Applus+ Certification)

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Summary:

Verification purpose: The project activity is 1000 MW run of the river hydro power plant harnessing the potential of river Sutlej executed by Jaypee Karcham Hydro Corporation Limited (JKHCL). The project activity is located between Karcham and Wangtoo in Kinnaur district of Himachal Pradesh. The project comprises 4 X 250 MW units in an underground power house for the generation of clean electricity. The generated electricity is fed into NEWNE (Now Indian) grid. The project leads to reduction of greenhouse gas emissions by replacing an equivalent amount of energy generated from fossil fuel intensive thermal power plants to meet the energy requirement.

The project was initially implemented by Jaypee Karcham Hydro Corporation Limited (JKHCL) by the promoter group Jaiprakash Industries Limited (formally Jaiprakash Associated Limited). Afterwards Jaypee Karcham Hydro Corporation Limited was merged to newly formed Jaiprakash Power Ventures Ltd (JPVL). Further, 01/09/2015 onwards, the Himachal Baspa Power Company Ltd. (HBPCL) has owned the power plant and thus new owner was acting as project proponent for the proposed project activity. However, on 11-September-2018, the name change process have been completed and thus, Himachal Baspa Power Company Ltd. (HBPCL) company name have been changed to JSW Hydro Energy Limited. Supporting document dated 11-September-2018 from Registrar of Companies (ROC), Ministry of Corporate Affairs, Govt. of India have been submitted by PP and found correct.

The project is registered with UNFCCC under Clean Development Mechanism program (CDM) with Registration reference number 4993¹. The start date of the project activity is the earliest date of

¹ <http://cdm.unfccc.int/Projects/DB/RWTUV1310469729.49/view>

commissioning of the 1st 250 MW plant unit (unit-1) involved in the project activity i.e. on 26-May-2011. The fixed VCS crediting period is chosen from 01/01/2013 to 31/12/2022.

Reporting period is from 01-January-2018 to 30-April-2020 (Both days included). The total emission reductions achieved for the project activity during the monitoring period has been 7,254,300 tonnes of CO₂e.

The GHG credits from 01-January-2018 to 30-April-2020 will be claimed under VCS only. An undertaking dated 22-June-2020 from the project participant confirms that project will not claim any other scheme benefits for the concerned monitoring period.

A risk based approach has been followed to perform this verification activity. In the course of verification, 08 Corrective Action requests (CAR), 00 Clarification Requests (CLs) and 00 Forward action requests (FARs) were raised and successfully closed. The review of the Monitoring report and additional documents related to baseline and monitoring methodology; the subsequent background investigation, follow-up interviews and PP have provided DOE with sufficient evidence to verify the fulfilment of the stated criteria of VCS.

LGAI Technological Center S.A. (Applus+ Certification) (Hereafter referred as Applus+ Certification) has been appointed by “JSW Hydro Energy Limited (formerly Himachal Baspa Power Company Ltd)” to perform the 2nd periodic verification of the “Hydroelectric Project in Kinnaur District in Himachal Pradesh” under VCS standard and guideline version 4.0. The objective of this verification activity is to have an independent third party for the assessment of the project design, Monitoring report and Final Verification report and to ensure a thorough assessment of the proposed project activity against the applicable CDM and VCS requirements. In particular;

- the project's baseline is assessed against “ACM0002 - Version 12.1.0”
- the project’s monitoring plan is assessed against “ACM0002 - Version 12.1.0”
- the projects compliance with, the requirements of Article 12 of the Kyoto Protocol, the CDM Modalities and Procedures as agreed in the Marrakech Accords under decision 3/CMP.1, the annexes to this decision, subsequent decisions and guidance made by COP/MOP & CDM Executive Board and other relevant rules, including the Host Country legislation and sustainability criteria along with VCS guideline and standard version 4.0
- CDM validation and verification standard for project activities, Version 02.0
- CDM project standard for project activities, Version 02.0
- CDM project cycle procedure for project activities, Version 02.0
- VCS standard v4.0
- VCS program guideline v4.0

Verification is a requirement for all VCS projects and is seen as necessary to provide assurance to stakeholders of the quality of the project and its intended generation of verified emission reductions (VERs).

The scope of the verification is the independent and objective review of the Monitoring report (MR). The MR is reviewed against the relevant criteria (see above) and decisions by the CDM Executive Board and VCS executive board, including the approved baseline and monitoring methodology. The

verification was based on the guidance given in the CDM validation and verification standard for project activities, Version 02.0, review against registered PD and Final Validation report, CDM project standard for project activities, Version 02.0, CDM project cycle procedure for project activities, Version 02.0 and VCS program guideline and standard version 4.0.

The assessment team has employed a risk based approach to assess the completeness and accuracy of the claims and conservativeness of the assumptions in the MR. The main focus of the assessment team is to identify the significant risks for the project implementation and the generation of VERs. The verification is not meant to provide any consulting towards the project participants. However, stated requests for clarifications and/or corrective actions may have provided input for improvement of the monitoring report combined.

The only purpose of the verification is its usage during the issuance process as part of the VCS project cycle. Therefore, LGAI Technological Center S.A. (Applus+ Certification) can't be held liable by any party for decisions made or not made based on the verification opinion, which will go beyond that purpose.

The verification has been planned and organized to achieve a Reasonable Level of assurance as per the requirement of VCS. No sampling procedures were adopted & a remote audit conducted due to pandemic situation and technical details and metering/monitoring arrangement verified through photos/certificates shared by PP. The entire documents checked for verification conducted to arrive at positive verification conclusions.

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1 INTRODUCTION

1.1 Objective

LGAI Technological Center S.A. (Applus+ Certification) (Hereafter referred as Applus+ Certification) has been appointed by “JSW Hydro Energy Limited (formerly Himachal Baspa Power Company Ltd)” to perform the 2nd periodic verification of the “*Hydroelectric Project in Kinnaur District in Himachal Pradesh*” under VCS standard and guideline version 4.0. The objective of this verification activity is to have an independent third party for the assessment of the project design, Monitoring report and Final Verification report and to ensure a thorough assessment of the proposed project activity against the applicable CDM and VCS requirements. In particular;

- the project's baseline is assessed against “ACM0002 - Version 12.1.0”
- the project's monitoring plan is assessed against “ACM0002 - Version 12.1.0”
- the projects compliance with, the requirements of Article 12 of the Kyoto Protocol, the CDM Modalities and Procedures as agreed in the Marrakech Accords under decision 3/CMP.1, the annexes to this decision, subsequent decisions and guidance made by COP/MOP & CDM Executive Board and other relevant rules, including the Host Country legislation and sustainability criteria along with VCS guideline and standard version 4.0
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- VCS standard v4.0
- VCS program guideline v4.0

Verification is a requirement for all VCS projects and is seen as necessary to provide assurance to stakeholders of the quality of the project and its intended generation of verified emission reductions (VERs).

1.2 Scope and Criteria

The scope is defined as an independent and objective review of the Monitoring report (MR) prepared as per the registered PD and registered approved methodology ACM0002 - Version 12.1.0. The MR is reviewed against the criteria stated in Article 12 of the Kyoto Protocol, the CDM modalities and procedures as agreed in the Marrakech Accords and the relevant decisions by the CDM Executive Board and VCS standard and guideline version 4.0, including the approved baseline and monitoring methodology ACM0002 - Version 12.1.0. The verification was based on the requirements in the CDM validation and verification standard for project activities, Version 02.0, CDM project standard for project

activities, Version 02.0, CDM project cycle procedure for project activities, Version 02.0 and VCS program guideline and standard version 4.0

The verification is not meant to provide any consulting towards the project participants. However, stated requests for clarifications and/or corrective actions may have provided input for improvement of the Monitoring report. In line with Guidelines for Application of materiality in verifications, the verification team has conducted a complete verification of all the information presented in the monitoring report and data monitored as presented in the emission reduction calculation spread sheet. It invoices follows the paper trail back to the raw data such as meter reading records and invoices. There are no material errors, overestimation of ER, omission or misstatement. No sampling is used as the verification team has visited Hydro site along with the substations. The verification team has reviewed all the documents like commissioning certificates, JMR, invoices etc.

1.3 Level of Assurance

The verification has been planned and organized to achieve a Reasonable Level of assurance as per the requirement of VCS. No sampling procedures were adopted & a remote audit conducted due to pandemic situation and technical details and metering/monitoring arrangement verified through photos/certificates shared by PP. The entire documents checked for verification conducted to arrive at positive verification conclusions.

1.4 Summary Description of the Project

The purpose of the project activity is to generate energy electricity by the utilization of hydro power and further selling the generated energy to the respective Grid. In this process there is no consumption of any fossil fuel and hence it does not lead to any greenhouse gas emissions. Thus, electricity would be generated through sustainable means without causing any negative impact on the environment.

The project activity is 1000 MW run of the river hydro power plant harnessing the potential of river Sutlej executed by Jaypee Karcham Hydro Corporation Limited (JKHCL) & after 01-September-2015 onwards, owned by Himachal Baspa Power Company Ltd. (HBPCL). However, on 11-September-2018, the company name have been changed from Himachal Baspa Power Company Ltd. (HBPCL) to JSW Hydro Energy Limited. The project activity is located between Karcham and Wangtoo in Kinnaur district of Himachal Pradesh. The project comprises 4 X 250 MW units in an underground power house for the generation of clean electricity. The generated electricity is fed into NEWNE grid (Now Indian grid). The project leads to reduction of greenhouse gas emissions by replacing an equivalent amount of energy generated from fossil fuel intensive thermal power plants to meet the energy requirement.

2 VERIFICATION PROCESS

2.1 Method and Criteria

Verification Process: The project assessment is based on the CDM validation and verification standard for project activities, Version 02.0 for the project activity and “VCS standard and program guideline version 4.0” and is conducted using standard auditing techniques to assess the correctness of the information provided by the project participants. Before the assessment begins, members of the team covering the technical scope(s), sectoral scope(s), and relevant host country experience for evaluating the VCS project activity are appointed.

Once the project is received by the assessment team, the members of the assessment team carried out:

1. A desk review of the Monitoring report against the registered PD and final validation report;
2. Follow-up interviews with project participant;
3. The resolution of outstanding issues and the issuance of the final verification report and opinion.

The prepared verification report and other supporting documents then undergo an internal quality control at the HQ (Accredited office) before being submitted to the VCS executive board.

In order to ensure transparency, assumptions must be clear and stated explicitly and background material must also be referenced. Applus+ Certification has developed a specific checklist customized for the project. The checklist demonstrates, in a transparent manner, the project criteria (requirements), discussion on each criterion by the assessment team, and the results from validating the identified criteria.

Appointment of the assessment team

According to the sectoral scope / technical area and experience in the sectoral or national business environment, Applus+ Certification has composed a project assessment team in accordance with the appointment rules in the internal Quality Management System of Applus+ Certification.

The composition of audit team shall be approved by the Applus+ Certification ensuring that the required skills are covered by the team.

The four qualification levels for team members that are assigned by formal appointment rules are as presented below:

- Lead Auditor (LA).
- Auditor (A) / Auditor in Training (AiT).
- Technical Expert (TE).
- Technical Reviewer (TR).

The sectoral scope / technical area knowledge linked to the applied methodology/ies shall be covered by the assessment team.

Name	Role	SS Coverage	TA Coverage	Financial aspect	Host country experience
Mr. Atul Takarkhede	LA/TE	YES	YES	NA	YES
Mr. Denny Xue	TR	YES	YES	NA	NA

The detail regarding the assessment team is provided below in this report as Appendix 3

Document review

The Monitoring report version 1 submitted by the PP was reviewed against the approved methodology, registered PD, final validation report and other relevant criteria to verify the correctness, credibility, and interpretation of the presented information. Furthermore, a cross-check between information provided and information from other sources has been done. A complete list of all documents and evidence material reviewed is included in this report below in appendix 1.

Follow-up interviews

A Remote Audit is conducted by Applus+ Certification. Audit team performed interviews, telephone conferences with project stakeholders & document review to confirm selected information and to resolve issues identified in the document review. The detail is provided in this report.

Resolution of Clarification and Corrective Action Request

The objective of this phase of the Verification was to resolve the requests for corrective actions and clarification and any other outstanding issues which need to be clarified for Applus+ Certification positive conclusion on the Monitoring report. The Corrective Action Requests and Clarification Requests raised by Applus+ Certification were resolved during communications between the Client and Applus+ Certification to guarantee the transparency of the verification process, the concerns raised and responses given are summarized below in the appendix 2.

The final MR Version 02 submitted by PP serves as the basis for the final assessment presented. Additional changes to the project during the verification process are not considered to be significant with respect to the main CDM/VCS objectives. The two CDM/VCS main objectives are the reduction of anthropogenic GHG emissions and the contribution of sustainable development to the host country.

Internal quality control

As final step of a verification of the final documentation including the verification report and the checklist have to undergo an internal quality control by the technical review committee, i.e. each report has to be finally approved either by the head of the technical review committee or the deputy. In case one of these two persons is part of the assessment team approval can only be given by the other one to avoid any conflict of Interest.

After confirmation of the PP the positive verification opinion and relevant documents are submitted to the VCS board through the VCS web-platform.

2.2 Document Review

The details of the document observed during the verification process are listed below in Appendix 1 of this report

2.3 Interviews

No Physical verification was conducted by the VVB for this VCS verification due to high threat of COVID-19 in entire state of India. Government of India has ordered nationwide lockdown from 25/03/2020 to 14/04/2020 in first phase & further extended to 31/05/2020² and respective state governments have also issued state wise orders (Project location state³ as well as audit team's home state⁴). Thus, all domestic & International travel, passenger movement by trains, interstate buses for public transport, movement by individuals are prohibited. The project site is not accessible in this location due to lockdown.

Hence, inline with the VCS guidelines, VVB has taken alternative measures to reach reasonable level of assurance. Further, no alternative monitoring approach has been used by project proponent during this monitoring period. Thus, assessment team have conducted remote audit and used verification techniques & advanced communication technology solutions to verify information and compliance with applicable requirements to the extent possible, to ensure the completeness and credibility of the audit.

Thus, following means of verification have been implemented by assessment team:

² https://www.mha.gov.in/sites/default/files/17052020Lockdown_1.pdf

³

<http://covidorders.hp.gov.in/frontend/web/writeData/Shimla/bcf4788c69e56aa5e5233801f5c37f563ee29651.pdf>

⁴

https://www.nmcnagpur.gov.in/assets/250/2020/06/mediafiles/Revised_Consolidated_Guidelines_for_Phase_wise_Opening_of_Lockdown_till_30th_June_2020_MC952020_05062020.pdf

- Cross checks between information provided in the VCS PD/Monitoring report and information.
- The DOE's sectoral & local expertise.
- Telephone & Skype video call Interviews with PP representative, O&M team and local stakeholders & consultant.
- Cross checks between the information provided by interviewed personnels & information provided in registered documents as well as previous verification documents;

No.	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
1.	Thakur	Anil Kumar	Plant Engineer, JSW (PP Representative)	24-June-2020 (Remote Audit)	Implementation of the project, O&M activities, Metering arrangements, Calibrations, JMR, On-going LSC. etc.	Dr. Atul Takarkhede
2.	Sharma	Vikas	Sr. Engineer, JSW	24-June-2020 (Remote Audit)	Plant Operation & monitoring	
3.	Sharma	Barun	GM, EKI Energy	24-June-2020 (Remote Audit)	Monitoring report, Emission reduction calculations etc.	
4.	Mitra	Souvik	Manager, EKI Energy	24-June-2020 (Remote Audit)	Monitoring report, Emission reduction calculations etc.	

The objective of the remote on-site assessment is to:

- Confirm the implementation and operation of the project;
- Review the data flow for generating, aggregating and reporting the monitoring parameters;
- Confirm the correct implementation of procedures for operations and data collection;
- Cross-check the information provided in the MR documentation with other sources;
- Check the monitoring equipment against the requirements of the VCS PD and the approved methodology, including calibrations, maintenance, etc.;
- Review the calculations and assumptions used to obtain the GHG data and ER;
- Identify if the quality control and quality assurance procedures are in place to prevent or correct errors or omissions in the reported parameters.
- To understand ongoing local stakeholders consultation.

2.4 Site Inspections

The verification team could not perform on-site inspection due to the on-going COVID-19 pandemic in the entire state of India as described in Section 2.3 above. The project site is not accessible in this location due to lockdown. Furthermore, the VCS program does not explicitly mandate site visits as part of the validation and verification process during such unprecedented circumstances, only that VVBs must achieve a reasonable level of assurance on all validations and verifications (per section 4.1.2 of the VCS Standard, v4.0).

Duration of on-site inspection: NA				
No.	Activity performed on-site	Site location	Date	Team member
-	NA	NA	NA	NA

However, the VVB has taken alternative measures to reach reasonable level of assurance and conducted remote audit through Skype video, telephone and email with the site personal & consultant on 24-June-2020 (refer section 2.3) to check the project design, implementation of the project activity.

During interview, the implementation of project activity and monitoring procedure and systems in place was confirmed. Technical specification of the plant verified through the photographs/name plates of turbines (refer Appendix 6) shared by PP and the same was cross checked with the previous CDM & VCS verification reports. Further, assessment team has also checked through interviewing PP and confirmed that the monitoring plan as described in the VCD PD is actually practiced onsite.

After Skype video call with PP representatives and verifying the photographs of turbines & other equipments and calibration certificates of meters, verification team confirmed that monitoring procedure is followed as per registered VCS PD and there is no change in technical specifications of plants since installation and all the meters are calibrated in accordance with VCS PD and host country metering guidelines.

A remote audit was conducted by the assessment team (Dr. Atul Takarkhede) on 24-June-2020.

2.5 Resolution of Findings

The objective of this phase of the Verification was to resolve the requests for corrective actions and clarification and any other outstanding issues from validation which need to be clarified for Applus+ Certification's positive conclusion on the Monitoring report. The Corrective Action Requests and Clarification Requests raised by Applus+ Certification were resolved during communications between the Client and Applus+ Certification to guarantee the transparency of the verification process, the concerns raised and responses given are summarized below in the appendix 2.

The final MR Version 2 submitted by PP serves as the basis for the final assessment presented. Additional changes to the project during the verification process are not considered to be significant with respect to the main CDM/VCS objectives. The two CDM/VCS main objectives are the reduction of anthropogenic GHG emissions and the contribution of sustainable development to the host country.

Areas of validation and verification findings	No. of CL	No. of CAR	No. of FAR
Project design document and Monitoring report	00	01	00
Description of project activity	00	03	00
Application of selected baseline and monitoring methodology and selected standardized baseline			
Applicability of methodology and standardized baseline	00	00	00
Deviation from methodology	00	00	00
Clarification on applicability of methodology, tool and/or standardized baseline	00	00	00
Project boundary	00	00	00
Establishment and description of baseline scenario	00	00	00
Demonstration of additionality	00	00	00
No Net harm assessment	00	01	00
Local stakeholder consultation	00	01	00
Emission reductions	00	01	00
Calibration details	00	01	
Monitoring plan	00	00	00
Others (please specify)	00	00	00
Total	00	08	00

The list of findings and their resolution is presented in Appendix 2 of this report.

2.5.1 Forward Action Requests

This is 2nd periodic verification of the project activity and no FAR was raised from validation or previous verification.

2.6 Eligibility for Validation Activities

This section is not applicable for present verification.

3 VALIDATION FINDINGS

3.1 Participation under Other GHG Programs

Project has been also registered with UNFCCC under Clean Development Mechanism (CDM) and the UN reference number is 4993⁵. The project proponent has provided undertaking that it will not claim any GHG credits under UNFCCC CDM during the current monitoring period.

3.2 Methodology Deviations

This section is not applicable for present verification.

3.3 Project Description Deviations

As per the registered VCS PD the PP is “Himachal Baspa Power Company Ltd.” The company name changed to “JSW Hydro Energy Limited” on 11-September-2018. The relevant document for change in company name issued by Registrar of Companies, Govt. of India have been checked and found correct. PP also informed that corresponding change in communication agreement to VCS has been provided. Thus, assessment team has accepted the project description deviation.

3.4 Grouped Project

This is not a grouped project.

⁵ <https://cdm.unfccc.int/Projects/DB/RWTUV1310469729.49/view>

4 VERIFICATION FINDINGS

4.1 Project Implementation Status

During the remote audit conducted by assessment team & document review, it was concluded that the project is implemented as per the instruction of the registered CDM PDD, Final CDM Validation report, VCS PD and Final Verification report for VCS GAP validation and verification. During the current monitoring period it was observed that no unforeseen situation evolved which can impact the operation of the project activity. Scheduled maintenance was carried out as per the instruction of the manufacturer and the same is acceptable to the assessment team.

The Project activity is a run-of-river hydropower project having aggregated installed capacity of 1000 MW that utilizes the natural flow of Satluj to generate electricity. The project location is Karcham and Wangtoo villages in Kinnaur district of Himachal Pradesh. There are four identical power units each having an installed capacity of 250 MW. The project activity includes 4 Francis turbines (with a rated capacity of 250 MW).

To verify the implementation of project activity, technical specifications of Turbine/Generator, onsite operation & maintenance, monitoring & management practices; assessment team has conducted Skype video call/telephonic interviews with onsite in-charge, O&M team and also had a detail discussion with the PP representative and reviewed third party statutory documents i.e. Technical specifications by manufacturer, Commissioning certificates, Complete set of JMRs covering monitoring period, breakdown log, O&M schedule, grievance register and other relevant records. Same are also cross-checked with photographs/videos submitted by PP for current monitoring period and previous CDM & VCS verifications and were found to be consistent with the description given in the registered CDM PDD & VCS PD.

After telephonic/Skype interviews with concerned onsite persons, document reviews & site videos/photographs submitted by PP; assessment team concluded that the project activity is still implemented and operated in-line with the registered VCS PD & CDM PDD. There is no change in the project design or operation and monitoring practices at site which can alter the applicability or additionality of the project activity. In addition to the interviews with PP, assessment team have checked the commissioning certificate and JMRs and found that the project activity is implemented as per the VCS PD and Monitoring report submitted by the PP for current monitoring period. Assessment team therefore of the opinion that project is implemented as described in the registered PD and there is no change in monitoring practices as well as all monitoring parameters as envisaged in the VCS PD & MR. All the monitored values are supported by the evidences i.e. JMRs and found that information provided in the MR is inline with the submitted evidences.

CAR 01, CAR 02, CAR 03 and CAR 04 was raised regarding inconsistencies in MR, name change of the company, declaration for avoidance of double counting of ERs and project operation & PP name change respectively. Revised MR version 02 was submitted by PP along with necessary supporting documents like ROC certificate, breakdown details & undertaking etc. Thus CARs have been closed.

By comparing the actual ER claimed in this monitoring period with the estimate in the VCS PD (8,258,004 tCO₂e for the monitoring period), the actual emission reductions (7,254,300 tCO₂e for the monitoring period) are lower than by 12% what is stated in the VCS PD which surely will not lead to the overestimation of VERs. The lower ER are attributed to less water availability and grid availability which is not under the control of PP.

The assessment team confirmed that there is no proposed or actual change to the project design during this monitoring period except name change of the PP (Refer section 3.3 of the report for details).

All required equipments and procedures are available and implemented in an appropriate manner.

It was observed that the monitoring plan was implemented as per the requirement of the CDM PDD & VCS PD and approved methodology ACM0002 - Version 12.1.0. The organisational role and responsibility as mentioned in the CDM PDD & VCS PD is followed onsite. All the monitoring equipment was calibrated as per the specified interval in the registered PD. All the emergency preparedness as mentioned in the CDM PDD & VCS PD is followed onsite and no discrepancies were found regarding the same.

The assessment team observed that the project is in line with the CDM PDD & VCS PD, CDM Final Validation Report & previous verifications and approved methodology and thus no clarification/deviation is sought.

However, the project proponent name has been changed from Himachal Baspa Power Company Ltd. (HBPCL) to JSW Hydro Energy Limited. PP have submitted supporting statutory document i.e. name change certificate dated 11-September-2018 from the Registrar of Companies, Ministry of Corporate Affairs, Government of India. Hence, same have been accepted by assessment team.

Assessment team checked and found that the Project proponent of the project activity is as below for the current monitoring period:

Organization name	JSW Hydro Energy Limited (formerly Himachal Baspa Power Company Ltd)
Contact person	Mr. Anil Kumar Thakur
Title	Plant Engineer
Address	Karcham- Wangtoo H.E. Project, Sholtu Colony, P.O. Tapri, Sholtu, Himachal Pradesh, India - 172104
Telephone	+91-7018858819
Email	anilkumar.thakur@jsw.in

Assessment team also checked the details of other entity and found that Other entity involved is:

Organization name	EKI Energy Services Limited
Role in the Project	Project Consultant
Contact person	Mr. Souvik Mitra
Title	Project Manager
Address	Office No 201, Plot No 48, Scheme 78, Vijay Nagar Part- II, Indore, India 452010
Telephone	+91-9109120945
Email	souvik@enkingint.org

Sustainable development indicators

The National CDM Authority (NCDMA), which is the Designated National Authority (DNA) for the Government of India (GOI) under the Ministry of Environment, Forests & Climate Change (MoEFCC), has mentioned four indicators for the sustainable development in the interim approval guidelines for Clean Development Mechanism (CDM/VCS) projects from India ⁶. Thus the project's contribution towards sustainable development has been addressed based on the following sustainable development aspects:

Social well-being

The project activity provided/provides job opportunity to local people during erection, commissioning and maintenance of the Hydro project. Frequency of visiting villages and nearby areas by skilled, technical and industrialist increase due to installation/site visit/operation and maintenance work related to hydropower plant. This directly and indirectly positively effects the economy of villages and nearby area. It involve inter alia construction of a 10+2 grade school, an industrial training institute, a 40 bedded hospital besides up-gradation of existing roads and bridges in the hilly terrain which would uplift the social life of the surrounding villages.

Environmental well-being

Hydro power is one of the cleanest renewable energy powers and does not involve any fossil fuel. There are no GHG emissions. The impact on land, water, air and soil is

⁶ http://www.cdmindia.gov.in/approval_process.php

negligible. Thus the project activity contributes to environmental well-being without causing any negative impact on the surrounding environment.

Economic well-being

The VCS project activity generates permanent and temporary employment opportunity within the vicinity of the project. The electricity supply in the nearby area improves which directly and indirectly improves the economy and life style of the area.

Technological well-being

The project activity is step forward in harnessing the untapped Hydro potential and further diffusion of the Hydro technology in the region. The project activity leads to the promotion and demonstrates the success of hydro projects in the region which further motivate more investors to invest in Hydro power projects. The project activity envisages installation of high efficiency turbines and generators and the power is transmitted at high voltage to ensure low losses. Hence, the project activity leads to technological well-being.

4.2 Safeguards

4.2.1 No Net Harm

Environmental Impact Assessment (EIA) studies were carried out as per the Ministry of Environment & Forest guideline i.e. EIA Notification 1994 applicable at that time by NEERI, a premier Government Environmental Research Lab & Consultancy ⁷. Environmental Impacts were identified following components:

- a. Air and Noise Environment
- b. Water Environment
- c. Land Environment
- d. Biological Environment
- e. Socio-economic Environment

As per the prevailing rules and regulations at that time Environmental Management Plan (EMP) was prepared & implemented by PP to mitigate adverse impacts and maximize beneficial impacts. The Project Proponents have made sufficient provision in the Project Cost to implement EMP provisions. Same are already mentioned in the registered CDM PDD⁸ and verified during interviews with PP. CAR 05 was raised by assessment team on No Net Harm assessment and same have been closed by PP by submitting revised MR.

⁷ <http://www.neeri.res.in>

⁸ <http://cdm.unfccc.int/Projects/DB/RWTUV1310469729.49/view>

4.2.2 Local Stakeholder Consultation

Local stakeholder consultation has been conducted at the time of project registration. As confirmed by PP during interviews, for on-going stakeholders communication, PP have maintained feedback/complaint register at the site office. Local stakeholders can anytime lodge their grievances if any in the register over the operational life time of the project. During interviews with PP, it was confirmed that Plant Engineer is responsible to address any grievances received from stakeholders. Further, PP conducts third party surveys through CSR for feedback from local stakeholders. Also, employees grievances is addressed through monthly programme “Savand”. All grievances has been attended by the Management inline with the standard operating procedures of the company. During current monitoring period no grievance was received. Thus, assessment team is of the opinion that the ongoing stakeholder mechanism is adequate and appropriate.

However, CAR 06 was raised on the on-going local stakeholder communication. PP have submitted revised monitoring report with on-going LSC mechanism details and CAR thus closed.

4.3 AFOLU-Specific Safeguards

This section is not applicable as this project activity is a non-AFOLU project activity.

4.4 Accuracy of GHG Emission Reduction and Removal Calculations

Means of verification	The emission reduction sheet, CEA database and registered CDM PDD, VCS PD & MR version 01 is checked by the assessment team.
Findings	Baseline emissions are calculated as per the applied methodology ACM0002 - Version 12.1.0. CAR 07 was raised during the verification and closed.
Conclusion	The baseline emissions as discussed in MR will include emissions that would have occurred in the absence of the project activity. The emission reduction calculation has been done as per the methodology ACM0002 - Version 12.1.0. $BE_y = EG_{PJ,y} * EF_{grid,CM,y}$ Where, BE_y = Baseline emissions in year y (tCO₂/yr) $EG_{PJ,y}$ = Quantity of net electricity generation that is produced and fed into the grid as a result of the implementation of the CDM project activity in year y (MWh/yr) $EF_{grid,CM,y}$ = Combined margin CO₂ emission factor for grid connected

	power generation in year y calculated using the latest version of the “Tool to calculate the emission factor for an electricity system” (t CO₂/MWh) The value of net electricity exported has been conservatively calculated deducting the energy imported and auxiliary consumption. All the export and import values were verified from the daily energy logs. EF_{grid,CM,y} : The emission factor for NEWNE grid to which the project activity exports electricity. All the data was made available and have been monitored as per required monitoring frequency. The baseline emissions are calculated as per provisions indicated in the registered CDM PDD and applied methodology. Combined Margin emission factor for NEWNE regional grid, EF_{grid,CM,y} The registered CDM PDD gives the value of 803.1 tCO₂/GWh. The value was calculated in accordance with the tool to calculate the emission factor for an electricity system prescribed by the applied methodology. The source value has been obtained from “CO₂ Baseline Database for the Indian Power Sector prepared by Central Electricity Authority Version 4.0. The value in the monitoring report and corresponding emission reduction calculation spreadsheet is consistent with registered CDM PDD. The applied value is correct and justified. Project Emissions Project emissions are calculated inline with the registered CDM/VCS PD: Surface area at full reservoir level = 588400 m² Power Density = 1699.52 W/m² The power density of the project activity is 1699.52 W/m². Further as per the 2019 measurement PD = (1000*1000*1000)/529209 = 1889.61 W/m² Since the power density of the project is greater than 10 W/m²: PE_y = 0. As per the methodology if the power density of the power plant is greater than 10 W/m², then the project emission PE_{HP,y} are zero. Leakage As per applied methodology, no other leakage emissions are considered. The project activity reduces carbon dioxide emissions through displacement of grid electricity generation with predominantly fossil fuel based power plants by renewable electricity. The emission reduction (ER_y) due to project activity during a given year y is calculated as the difference between baseline emissions (BE_y), project emissions (PE_y) and emissions due to leakage, as per the formulae given below:
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	$ER_y = BE_y - PE_y$ Where, ER_y = Emission Reduction in tCO₂/year BE_y = Baseline emission in tCO₂/year PE_y = 0 for the project activity as per the methodology. Therefore, $ER_y = BE_y$. $EG_{PJ,y}$ is The parameter is monitored through energy meters installed at the Pothead yard. It indicates the net electricity generated by the project activity in MWh. The parameter is continuously monitored and monthly recorded as per the VCS PD & CDM PDD. The measuring and reporting frequency are in line to registered VCS PD & CDM PDD and applied methodology. There is one main Energy meter and one check meter at every Power Unit. All the meters were of accuracy class 0.2s. The technical details of the meters are specified in the MR are found consistent with the actual records and on ground. The accuracy of the monitoring equipment is 0.2s (all main and check meters), which is as per the registered CDM PDD. Calibration frequency is specified as Once in two years. The calibration frequency is in line with the registered PDD and details are given in Appendix 5 of this report. Moreover, the verification team has checked the entire monthly JMR report and invoices applicable for the monitoring period and found all the parameters are monitored and recorded as per the monitoring plan in the registered PDD. The verification team has crosschecked the revised emission reduction sheet and monitoring report data with the JMR sheet and the JMR values have been cross checked with the invoices on sample basis and found that values are matching. The monitoring values were also cross checked with TEGy, which is also a monitored parameter to determine gross electricity generation. The annual value for TEGy (9,094,328.11 MWh) is higher than the $EG_{facility,y}$⁹ (9,032,892.69 MWh). Cap_{PJ}: Installed capacity of the hydro power plant after the implementation of the project activity have not been changed. Hence there is no change in the parameter value i.e. 1000 MW. A_{PJ}: There is no change in the reservoir construction since commissioning. Area of the reservoir measured in the surface of the water, after the implementation of the project activity, when the reservoir is full is estimated to be 588,400 m². However, as per the measurement done in Year 2019 it is found to be slightly reduced to 529,209 m² due to siltation. Same have been confirmed during telephonic interviews with PP and thus
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⁹ $EG_{facility,y} = TEGy - \text{Auxiliary consumption}$

	acceptable to assessment team. The data management system is effective and reliable. The necessary QA/QC processes were found to be in place. The parameter has been monitored appropriately, in accordance with the registered monitoring plan and applied methodology. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan.
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4.5 Quality of Evidence to Determine GHG Emission Reductions and Removals

Means of verification	The verification team checked the Calibration details of the monitoring meters with the calibration certificates.
Findings	CAR 08 was raised during the verification process. The description of the CAR and its closure is described below in Appendix 2 of this report
Conclusion	The metering arrangement is tri-vector bi-directional energy meters (main and check) at the State Electricity Board (SEB) substation. These meters record several parameters including electricity exported & imported. These electricity meters are being used by state electricity board for JMR (Joint Meter Reading) electricity generation statements. No delayed calibrations were observed in the project activity for this monitoring period. All the meters are of same accuracy class i.e. 0.2s as per the requirement of the registered CDM PDD. Document review and interview with plant personnel also conforms the same.

4.6 Non-Permanence Risk Analysis

No.	Risk that could lead to material errors, omissions or misstatements	Assessment of the risk		Response to the risk in the verification plan and/or sampling plan
		Risk level	Justification	
NA	NA	NA	NA	NA

5 VERIFICATION CONCLUSION

Applus+ Certification has been engaged by *JSW Hydro Energy Limited (formerly Himachal Baspa Power Company Ltd)* to perform the 2nd periodical verification of the “*Hydroelectric Project in Kinnaur District in Himachal Pradesh*”

The management of JSW Hydro Energy Limited (formerly Himachal Baspa Power Company Ltd) is responsible for the preparation of the GHG emissions data and the reported GHG emissions reductions on the basis set out within the project’s Monitoring Plan in the registered VCS PD and the applied methodology ACM0002 - Version 12.1.0

Our verification approach was based on the requirements as defined under the Kyoto Protocol, Marrakesh accord, as well as those defined by the CDM Executive Board. Our approach is risk-based, drawing on an understanding of the risks associated with reporting GHG emissions data and the controls in place to mitigate these. Further, the verification has been planned and organized to achieve a Reasonable Level of assurance as per the requirement of VCS. No sampling procedure applied for document verifications. The entire documents checked/Power plant verification conducted to arrive at positive verification conclusions. The verification team can confirm that:

- the project is operated as planned and described in the project document;
- the monitoring plan is as per the applied methodology;
- the monitoring process in Monitoring Report is as per the PD
- the development and maintenance of records and reporting procedures are in accordance with the monitoring plan;
- the installed equipment being essential for generating emission reduction runs reliably and is calibrated appropriately;
- the monitoring system is in place and generates GHG emission reductions data;
- the GHG emission reductions are calculated without material misstatements.
- A Reasonable Level of assurance was achieved as planned during verification process.

Verification period: 01-January-2018 to 30-April-2020 (inclusive of both days)

Verified GHG emission reductions and removals in the above verification period:

Year	Baseline emissions or removals (tCO ₂ e)	Project emissions or removals (tCO ₂ e)	Leakage emissions (tCO ₂ e)	Net GHG emission reductions or removals (tCO ₂ e)
01-January-2018 to 31-	3,163,013	0	0	3,163,013

Year	Baseline emissions or removals (tCO ₂ e)	Project emissions or removals (tCO ₂ e)	Leakage emissions (tCO ₂ e)	Net GHG emission reductions or removals (tCO ₂ e)
December-2018				
01-January-2019 to 31-December-2019	3,683,633	0	0	3,683,633
01-January-2020 to 30-April-2019	407,654	0	0	407,654
Total	7,254,300	0	0	7,254,300

APPENDIX 1: DOCUMENTS REVIEWED OR REFERENCED (VERIFICATION)

No.	Author	Title	References to the document	Provider
1.	PP	Commissioning certificates of the hydropower plant.	NA	Project participant
2.	Applus Certifications	Contract of the project participant with the DOE	Contract document signed between PP and DOE	Project participant
3.	ANDRITZ Hydro	Technical specifications of turbine from manufacturers	Manufacturer technical specifications	Project participant
4.	M/s Power Trading Corporation of India Limited & PP	Power Purchase agreement for the project activity	NA	Project participant
5.	PP	Registered CDM PDD	Version 04 28-March-2012	UNFCCC
6.	TUV Nord	Final CDM Validation report	Version 02 12-April-2012	UNFCCC
7.	PP	First CDM MR	Version 03 14-September-2016	UNFCCC
8.	ESPL	First CDM Verification Report	Version 01 04/11/2016	UNFCCC
9.	PP	Final VCS PD	Version 02 17-April-2018	Project participant
10.	PP	Final Monitoring report (First VCS Verification)	Version 02 17-April-2018	Project participant
11.	Applus Certifications	VCS GAP Validation and Verification Report	Version 02.1 08-May-2018	
12.	PP	Draft Monitoring report (2 nd VCS Verification)	Version 01 18-June-2020	Project participant
13.	PP	Final Monitoring report (2 nd VCS Verification)	Version 02 26-June-2020	Project participant
14.	PP	Emission Calculation sheet version 01	Version 01 18-June-2020	Project participant
15.	PP	Revised Emission Calculation sheet version 02	Version 02 26-June-2020	Project participant
16.	ANDRITZ Hydro	The operational lifetime of the project activity from the manufacturer=(Technical specifications)	Manufacturer technical specifications	Project participant
17.	MoEFCC	Ministry of Environment and forest:	Reference link is	Independent

	UNFCCC CEA VERRA	www.envfor.nic.in UNFCCC www.cdm.unfccc.int CEA: Central electricity authority www.cea.nic.in VCS: Verified Carbon Standard www.v-c-s.org	provided.	Search
18.	UNFCCC	Tools/ guidelines used in the project activity • Tool to determine the remaining lifetime of the project activity in line with Annex 15 EB 50 • Tool to calculate the emission factor for an electricity system • Glossary of CDM terms version 07 • VCS verification report template version 4.0	UNFCCC CDM web site	UNFCCC
19.	PP	JMR records for the complete monitoring period	JMR records	Project participant
20.	PP	Invoices for the complete monitoring period	Invoice	Project participant
21.	PP	Letter of declaration dated from PP regarding not having created or sought any other form of environmental credit for the same period and double counting	22-June-2020	Project participant
22.	ROC	Name Change certificate from Registrar of Companies (ROC), Ministry of Corporate Affairs, Government of Maharashtra	11-September-2018	Project participant
23.	PP	Break down details of the complete monitoring period	Log sheet	Project participant
24.	NA	Skype and telephonic interviews carried out with PP as part of remote audit due COVID-19 situation in India	NA	NA

APPENDIX 2: CORRECTIVE ACTION REQUESTS, CLARIFICATION REQUESTS AND FORWARD ACTION REQUESTS (CAR/CL/FAR)

Project Implementation Status

CAR ID	01	Section no.	4.1	Date: 24-June-2020
Description of CAR				
During review of monitoring report following inconsistencies observed: 1. Cover page is not inline with the guidelines to complete monitoring report, Version 04 of VCS standard. 2. Date format not consistent throughout MR inline with version 04 guideline s to complete MR. 3. Font is not consistent throughout MR inline with version 04 guideline s to complete MR. 4. Reference of wind project in the MR appearing. Corrections sought.				
Project participant response				Date: 26-June-2020
1. Cover page of MR revised 2. Date format revised in MR 3. Font in MR revised and has been made consistent throughout MR 4. Reference of wind project in the MR now corrected.				
Documentation provided by project participant				
Monitoring Report Version 02				
DOE assessment				Date: 26-JUNE-2020
PP have submitted the revised MR and same have been checked for the corrections in the respective section. PP have done corrections appropriately and thus CAR have been closed.				

CAR ID	02	Section no.	4.1	Date: 24-June-2020
Description of CAR				

Section 1.1 of the MR is not inline with VCS approved Joint PD & MR. Further, during with PP it was noted the name of the PP company have been changed. Same is missing in the MR with evidences. Moreover, any changes in communication agreement & PP Contact person are not addressed.	
Project participant response	Date: 26-June-2020
Section 1.1 of MR has been revised with inclusion of detailed information regarding change in PP company. Revised communication agreement along with PP contact person has been provided to VCS	
Documentation provided by project participant	
Monitoring Report Version 02	
DOE assessment	Date: 26-JUNE-2020
PP have revised the section 1.1 of the MR inline with the registered VCS PD. Also PP have submitted ROC letter for support of name change of the PP and revised MR accordingly. CAR closed.	

CAR ID	03	Section no.	4.1	Date: 24-June-2020
Description of CAR				
As per section 1.9 of the VCS MR, the project is registered under CDM mechanism and has not intended to pursue credits from other GHG program for the concerned monitoring period. Supporting documents and details regarding the same is missing in the MR. Also, PP needs to justify whether REC benefits is taken for the present Monitoring period covered under VCS. Corrective action is sought for the same. PP is requested to submit an undertaking for no any double accounting for current monitoring period and project activity is not participated any other GHG program other than VCS.				
Project participant response				Date: 26-June-2020
PP has provided undertaking that during the current monitoring period, it will not claim GHG credits under any GHG program other than VCS and it will also not claim any environmental credits like REC during the current monitoring period to avoid double accounting				
Documentation provided by project participant				
Undertaking from PP that during the current monitoring period, it will not claim GHG credits under any GHG program other than VCS and it will also not claim any environmental credits like REC during the current monitoring period to avoid double accounting				
DOE assessment				Date: 26-JUNE-2020
PP have submitted undertaking for avoiding double counting of ER achieved and not availing REC benefits. CAR thus closed.				

CAR ID	04	Section no.	4.1	Date: 24-June-2020
Description of CAR				
Section 3.1 of the MR missing information on: - The operation of the project activity(s) during this monitoring period, including any information on events that may impact the GHG emission reductions or removals and monitoring. - Any other changes (e.g., to project proponent or other entities). Corrections sought.				
Project participant response				Date: 26-June-2020
1. Section 3.1 of MR revised with inclusion of plant operation and shutdown details 2. Change in Project proponent name mentioned in Section 3.2.2 of MR				
Documentation provided by project participant				
Monitoring Report Version 02				
DOE assessment				Date: 26-JUNE-2020
PP have submitted the revised MR with details of the plant operation and shutdown details. Also PP have revised MR for name change of the PP appropriately. CAR thus closed.				

Safeguard

CAR ID	05	Section no.	4.2.1	Date: 24-June-2020
Description of CAR				
Section 2.1 of the MR is not inline with approved VCS PD, MR and version 04 guidelines to complete MR. Corrections sought.				
Project participant response				Date: 26-June-2020
Section 2.1 of MR has been revised in accordance with VCS PD				
Documentation provided by project participant				
Monitoring Report Version 02				
DOE assessment				Date: 26-JUNE-2020
Section have been corrected appropriately in the revised MR. CAR closed.				

Local Stakeholder Consultation

CAR ID	06	Section no.	4.2.2	Date: 24-June-2020
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Description of CAR	
Section 2.2 of the MR is not inline with guidance to complete MR, VCS 04. Corrections sought.	
Project participant response	Date: 26-June-2020
Section 2.2 of MR has been revised in accordance with VCS PD	
Documentation provided by project participant	
Monitoring Report Version 02	
DOE assessment	Date: 26-JUNE-2020
Section have been corrected appropriately and on-going local stakeholders mechanism have been added in the section. CAR closed.	

Accuracy of GHG Emission Reduction and Removal Calculations

CAR ID	07	Section no.	4.4	Date: 24-June-2020
Description of CAR				
During review of Emission reductions calculation sheet following inconsistencies observed. 1. Leakage is not considered as per applied methodology and registered documents. However, same are reflecting in the ER sheet. 2. Formula for ER comparison of Estimated Vs actual is not found to be correct. Correction requested.				
Project participant response				Date: 26-June-2020
Emission Reductions calculation sheet has been revised accordingly – no leakage has been considered and the formula for ER comparison Estimated vs Actual has been corrected				
Documentation provided by project participant				
1. Monitoring Report Version 02 2. ER sheet Version 02				
DOE assessment				Date: 26-JUNE-2020
Emission Reduction sheet have been corrected appropriately. CAR thus closed.				

Quality of Evidence to Determine GHG Emission Reductions and Removals

CAR ID	08	Section no.	4.5	Date: 24-June-2020
Description of CAR				
Calibration details are missing in the monitoring report. Further, PP requested to submit copies of the calibration certificates covering complete monitoring period.				

Project participant response	Date: 26-June-2020
Calibration details of electricity meters have been included in MR. Calibration certificate copies have also been submitted.	
Documentation provided by project participant	
1. Monitoring Report Version 02	
2. Meter Test Reports	
DOE assessment	Date: 26-JUNE-2020
PP have revised MR for details of the calibration details of the monitoring meters. Same have been found inline with the calibration certificates provided. No delayed calibration observed. CAR closed.	

APPENDIX 3: COMPETENCE OF TEAM MEMBERS AND TECHNICAL REVIEWERS

Verification team member

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of DOE or outsourced entity)	Involvement in			
						Desk review	On-site inspection	Interview(s)	Verification findings
1.	Lead Auditor/Technical Expert	OR	TAKARKHEDE	ATUL	TQC-Outsourced entity	Yes	No	Yes	Yes

Technical reviewer and approver of the verification and certification report

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of DOE or outsourced entity)
1.	Technical reviewer (TR)	EI	Xue	Denny	Applus+ Certification
2.	Approver	IR	Sendin	Juan	Applus+ Certification B.U. Managing Director

Short CVs of the Team:

- Dr. Atul Takarkhede counts with 10 years of experience in field of Environmental Auditing, consulting and accreditation. He is an Expert in ISO 9001-14001, CO2/GHG Reporting, Carbon Foot Print, Energy, Water and Waste Management Reporting for organizations environmental performance. His professional portfolio is mainly related with carrying out EIA, conducting QA/QC of EIA Reports; Conducting Environmental/water Audits; NABET requirements appliance. Furthermore, he counts with solid experience on CDM-VCS-GS consultancy and auditing. He has Ph.D. (Environmental Science) from Institute of Science, RTM Nagpur University, Nagpur, and he has already published different technical reports related to environmental science

2. Mr. Denny Xue has a Bachelor's Degree on Thermal Energy Engineering and Master's Degree on Environmental Engineering. He has more than 10 years of experience on CDM project development. Before he joined Applus+ LGAI, he has been worked for Shanghai Chuanji Investment and Management which is a CDM consultancy company as a project manager for CDM project development. He is working with Applus+ since 2011 carrying out Validation and verification for CDM/GS/VCS project under scope 1 and 13 as auditor, lead auditor, technical expert and technical reviewer.

APPENDIX 4: ABBREVIATIONS

Abbreviations	Full texts
BM	Build Margin
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CER	Certified Emission Reduction(s)
CEA	Central Electricity Authority
CL	Clarification request
CM	Combined Margin
CMS	Central Monitoring system
CO ₂	Carbon dioxide
CO ₂ e	Carbon dioxide equivalent
DNA	Designated National Authority
DOE	Designated Operational Entity
DR	Document Review
EF	Emission Factor
EIA	Environmental Impact Assessment
ER	Emission Reductions
FAR	Forward Action Request
GHG	Greenhouse gas(es)
GWP	Global Warming potential
JSW	JSW Hydro Energy Limited
RBI	Reserve Bank Of India
ROC	Registrar of Companies
PP	Project Participant

APPENDIX 5: CALIBRATION DETAILS OF THE METERS

All meters are L&T make with 0.2s Accuracy class and calibration frequency as per registered documents is once in 2 years

Sr No	Location	Type	Serial Number	Previous Calibration date	Calibration date	Calibration compliance
1	Feeder-1	Main	NP8526A	07-January-2017	29-November-2018	Yes
2	Feeder-2	Main	NP8530A	07-January-2017	29-November-2018	Yes
3	Feeder-3	Main	NP8528A	07-January-2017	29-November-2018	Yes
4	Feeder-4	Main	NP8529A	07-January-2017	29-November-2018	Yes
5	Feeder-5	Main	NP8527A	07-January-2017	29-November-2018	Yes
6	Feeder-6	Main	NP8546A	07-January-2017	29-November-2018	Yes
7	Feeder-1	Check	NP8400A	06-January-2017	30-November-2018	Yes
8	Feeder-2	Check	NP8401A	06-January-2017	30-November-2018	Yes
9	Feeder-3	Check	NP8402A	06-January-2017	30-November-2018	Yes
10	Feeder-4	Check	NP8403A	06-January-2017	30-November-2018	Yes
11	Feeder-5	Check	NP8548A	06-January-2017	30-November-2018	Yes
12	Feeder-6	Check	NP8547A	06-January-2017	30-November-2018	Yes

APPENDIX 6: REMOTE AUDIT DETAILS













