VALIDATION REPORT

ADAVIKANDA, KURUWITA DIVISION MINI HYDRO POWER PROJECT

(GS6051)

Report No: 8000478821 – 17/156

Date: 10/10/2018

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GOLD STANDARD VALIDATION REPORT	
Title of the project activity	**Adavikanda, Kuruwita Division Mini Hydro Power Project**
Version number of the validation report	1.0 TN P-No. : 8000478821-17/156
Completion date of the validation report	10/10/2018
Version number of PDD to which this report applies	4.0
Date of uploading of Audit & Work Plan (for GS-VER only)	11/12/2017
UNFCCC Reference Number (if applicable)	3531
Project participant(s)	Alternate Power Systems (Pvt.) Ltd Mitsubishi UFJ Morgan Stanley Securities Co., Ltd.
Host Party	Sri Lanka
Estimated annual average GHG emission reductions or net removals in the crediting period (tCO2e)	17,549
Sectoral scope(s) and selected methodology(ies)	Scope: 1 / Technical Area: 1.2 AMS-I.D. Version 18 “Grid connected renewable electricity generation”
Name of GS VVB	TÜV NORD CERT GmbH
Confidential content:	☐ Yes ☒ No
Name, position and signature of the approver of the validation report	Stefan Winter Final Approver

Abbreviations

BAU	Business as usual
CA	Corrective Action / Clarification Action
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CEB	Ceylon Electricty Board
CER	Certified Emission Reduction
CL	Clarification Request
CO_2	Carbon dioxide
CO_{2e}	Carbon dioxide equivalent
CP	Certification Program
DNA	Designated National Authority
DOE	Designated Operational Entity
DValR	Draft Validation Report
EB	CDM Executive Board
EIA	Environmental Impact Assessment
ESIA	Environmental and Social Impact Assessment
FAR	Forward Action Request
FValR	Final Validation Report
GHG	Greenhouse gas(es)
GS	Gold Standard
GSPDD	Gold Standard Project Design Document
GST	Gold Standard Toolkit
GS-VVM	Gold Standard Validation & Verification Manual
IPCC	Intergovernmental Panel on Climate Change
LSC	Local Stakeholder Consultation
LSCR	Local Stakeholder Consultation Report
PA	Project Activity
PDD	Project Design Document
PFA	Pre-Feasibility Assessment
PS	CDM Project Standard
SFR	Stakeholder Feedback Round
QC/QA	Quality control/Quality assurance
UNFCCC	United Nations Framework Convention on Climate Change
VAL	CDM Validation Report (registered)
VVS	CDM Validation and Verification Standard

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1 OBJECTIVE / SCOPE

The purpose of a validation is to have an independent third party assess the project design and compliance with the GS requirements as described in the Gold Standard documentation (GS4GG), and supporting documents availed by Project Participants.

The project design documents and supporting documents were reviewed against the criteria as set out in the Gold Standard Requirements and respective Annexes. The findings and conclusions on the project's compliance with the Gold Standard are recorded in this document.

In particular the project's

- Eligibility for GS registration
- Baseline and Monitoring Methodology
- Technology transfer
- Do No Harm Assessment
- Contribution to Sustainable Development
- Compliance with GS additionality requirements
- Application of conservative assumptions
- Monitoring of sustainable development parameters
- Environmental & Social Impacts & potential Mitigation Measures
- Stakeholder consultation requirements & responses
- Gender Sensitivity

are validated in order to confirm that the project design as documented is sound and reasonable and meets the stated requirements and identified criteria. Validation is seen as necessary to provide assurance to stakeholders on the quality of the project and its intended generation of Certified Emission Reductions (CERs) and/or Voluntary Emission Reductions (VERs).

The validation is based on the information made available to TÜV NORD JI/CDM CP and on the contract conditions.

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

2 GHG PROJECT DESCRIPTION

2.1 Project Characteristics

Essential data of the project is presented in the following Table 2-1.

Table 2-1: Project Characteristics

Item	Data		
Project title	Adavikanda, Kuruwita Division Mini Hydro Power Project		
Project size	☐ Large Scale ☒ Small Scale ☐ Micro Scale		
Project Scope *(according to UNFCCC sectoral scope numbers for CDM)*	☒	1	Energy Industries (renewable- /non-renewable sources)
	☐	2	Energy distribution
	☐	3	Energy demand
	☐	4	Manufacturing industries
	☐	5	Chemical industry
	☐	6	Construction
	☐	7	Transport
	☐	8	Mining/Mineral production
	☐	9	Metal production
	☐	10	Fugitive emissions from fuels (solid, oil and gas)
	☐	11	Fugitive emissions from production and consumption of halocarbons and hexafluoride
	☐	12	Solvents use
	☐	13	Waste handling and disposal
	☐	14	Afforestation and Reforestation
	☐	15	Agriculture
	☐	16	Carbon Capture and storage of CO2 in geological formations
Applied Methodology	AMS-I.D. Version 18 “Grid connected renewable electricity generation”		
Technical Area(s)	1.2 Renewables		
Crediting period	☒ Renewable Crediting Period (7 y) ☐ Fixed Crediting Period (10 y) ☐ as per Project lifetime (xx y)		
Start of crediting period	2 years prior to date of Gold Standard registration.		

2.2 Involved Parties and Project Participants

The following parties to the Kyoto Protocol and project participants are involved in this project activity (Table 2-2).

Table 2-2: Project Parties and project participants

Characteristic	Party	Project Participant (yes/no)
Non-Annex 1 Country	Sri Lanka	No
Annex 1 Country	Japan	No

2.3 Project Location

The details of the project location are given in table 2-3:

Table 2-3: Project Location

A. No.	Project Location
Host Country	Sri Lanka
Region:	Ratnapura District
Project location address:	Adavikanda, Kuruwita division
Latitude:	6° 49' 56" N
Longitude:	80° 25' 27" E

2.4 Technical Project Description

The project reduces GHG emissions by the operation of a 6.5 MW mini run-of-river hydro power plant on the Kuru Ganga River, in Kuruwita division of Ratnapura District in Sri Lanka. The project activity involves generation of electricity from the small-scale hydropower plant and supply of the power generated to the Sri Lankan national utility grid, the Ceylon Electricity Board. It is expected to generate 19,929 GWh of power per annum. The project was registered under the CDM (registration date: 24/08/2010 CDM ref. num. 3531), with the first renewable crediting period from 24/08/2010 – 23/08/2017.

The technical key data are provided in table 2-4 below

Table 2-4: Technical data of the project activity

Parameter	Unit	Value
Turbine		
Model No.	-	550G150
No. of Units	r	3
Mean diameter of runner	mm	550
Rated speed	rpm	1000
Over Speed	rpm	1960
Inlet pipe nominal diameter	mm	800
Turbine power output	kW	2418
Manufacturer		Gilbert Gilkes & Gordon Ltd
Generator		
Input power	kW	2418
Type	-	NIR6375A-6
No. of Units		3
Apparent output	kVA	2,920
Maximum Power output	kW	2336
Power factor	-	0.8
Tension	V	660
Frequency	Hz	50

Speed	RPM	1000
Runaway speed	RPM	1960
Runaway speed period	min/24 h	60
Protection	-	IP-23
Service	-	S1
Manufacturer		Alconza Spain.

3 METHODOLOGY AND VALIDATION SEQUENCE

3.1 Validation Steps

The validation of the project consisted of the following steps:

- Contract review
- Appointment of team members and technical reviewers
- Detailed desk review of the (CDM registered) PDD, the Gold Standard PDD (GS PDD), Gold standard local stakeholder consultation report and other relevant supporting documents
- Desk review of the GS documents and relevant supporting documents
- Validation planning
- Uploading of the GS Validation Work Plan
- On-Site assessment
- Background investigation and follow-up interviews with personnel of the project developer and its contractors
- Draft validation reporting
- Resolution of corrective actions (if any)
- Final validation reporting
- Technical review
- Final approval of the validation

3.2 Contract review

To assure that

- the project falls within the scopes for which accreditation is held,
- the necessary competences to carry out the validation can be provided,
- Impartiality issues are clear and in line with the CDM accreditation requirements

a contract review was carried out before the contract was signed.

3.3 Appointment of team members and technical reviewers

On the basis of a competence analysis and individual availabilities, a validation team, consisting of one team leader and one additional team member, as well as the Technical Review personnel were appointed.

The list of involved personnel, the tasks assigned and the qualification status are summarized in the table 3-2 below.

Table 3-2: Involved Personnel

	Name	Company	Function [1]	Qualification Status [2]	Scheme competence [3]	Technical competence [4]	Host country Competence	On-site visit
☒ Mr. ☐ Ms.	Prakash Kumar Mishra##	TN India	TL	SA	☒	1.2	☒	☐
☒ Mr. ☐ Ms.	G Ezhilarasu##	TN India	TL	SA	☒	1.2	☒	☒
☒ Mr. ☐ Ms.	David Lubanga	-	TR	LA	☒	1.2	☐	-
☒ Mr. ☐ Ms.	Stefan Winter	TN CERT GmbH	FA[B)]	SA	☒	1.2	☐	-

1) TL: Team Leader; TM: Team Member, TR: Technical review; OT: Observer-Team, OR: Observer-TR; FA: Final approval

2) GHG Auditor Status: A: Assessor; LA: Lead Assessor; SA: Senior Assessor; T: Trainee; TE: Technical Expert

3) GHG auditor status (at least Assessor)

4) As per S01-MU03 or S01-VA070-A2 (such as 1.1, 1.2, …)

5) In case of verification projects

A) Team Member: GHG auditor (at least Assessor status), Technical Expert (incl. Host Country Expert or Verification Expert), not ETE

B) No team member

As a GS - VVB , Mr Prakash is appointed as team leader from 01-03-2018 and Mr G Ezhilarasu Acted as team leader till 28-02-2018.

All team members contributed to the review of documents, the assessment of the project activity and to the preparation of this report under the leadership of the team leader.

All team members as indicated in the table above attended in the complete site-visit.

Technical Experts contributed to the assessment of special aspects of the project activity, e.g. technical or host country aspects related to transport sector.

Statements of competence for the above mentioned team members are enclosed in annex 7 of this report.

3.4 Validation Protocol

In order to ensure consideration of all relevant assessment criteria, a validation protocol is used. The protocol shows, in a transparent manner, criteria and requirements, means of validation and the results from pre-validating the identified criteria. The validation protocol reflects the generic CDM / GS requirements each project has to meet as well as project specific issues as applicable. The validation protocol serves the following purposes:

- It organises, details and clarifies the requirements that a CDM-GS/ GS-VER project is expected to meet;
- It ensures a transparent validation process where the validating entity will document how a particular requirement has been validated and the result of the determination.

The validation protocol is described in Figure 1.

Validation Protocol Table A-1: Requirement checklist				
Checklist Item	***Validation Team Comment***	***Reference***	***Draft Conclusion***	***Final Conclusion***
The checklist items in Table A-1 are linked to the various requirements the project should meet. The checklist is organised in various sections. Each section is then further sub-divided as per the requirements of the topic and the individual project activity.	*The section is used to elaborate and discuss the checklist item in detail. It includes the assessment of the validation team and how the assessment was carried out. The reporting requirements of the GS/ VVS shall be covered in this section.*	*Gives reference to the information source on which the assessment is based on*	*Assessment based on evidence provided if the criterion is fulfilled (OK), or a CAR, CL or FAR (see below) is raised. The assessment refers to the draft validation stage.*	*In case a corrective action or a clarification the final assessment at the final validation stage is given.*

Figure 1: Validation protocol table

The completed validation protocol is enclosed in Annex 1 to this report.

3.5 Review of Documents

The GSPDD, LSC report and supporting background documents related to the project design and baseline were reviewed.

Furthermore, the validation team used additional documentation by third parties like host party legislation, technical reports referring to the project design or to the basic conditions and technical data.

3.6 Site Visit and Follow-up Interviews

The validation team has carried out a site visit on 17th and 18th of December 2017 in order to assess the information included in the project documentation and to gain additional information regarding the compliance of the project with the relevant criteria applicable for CDM/GS. The proposed project site included in the project activity has been visited by a validation team member.

Table 3-3: Interviewed persons and interview topics

Interviewed Persons / Entities	Interview topics
Project proponent representatives Project consultant	- Chronological description of the project activity with documents of key steps of the implementation. - Current status of plant design - Technical details of the project realization, project feasibility, designing, operational life time, monitoring of the project - Host Government Approval (if applicable) - Approval procedures and status - Monitoring and measurement equipment and system. - Financial aspects - Crediting period - Project activity starting date - CER allocation / ownership - Baseline study assumptions - Additionality - Sustainable development issues/indicators/matrix - Monitoring - Analysis of complete local stakeholder consultation including Stakeholder Feedback Round - Roles & responsibilities of the project participants w.r.t. project management, monitoring and reporting - National Legislation - Editorial issues of the LSC report

A comprehensive list of all interviewed persons is part of section 7 ‘References’.

3.7 Project comparison

The validation team has compared the proposed GS/CDM project activity with similar projects or technology that have similar or comparable characteristics and with similar projects in the host country in order to achieve additional information esp. regarding:

- Project technology

- Baseline determination
- Reasons for reviews, requests for reviews and rejections within the CDM registration process.

3.8 Resolution of Clarification and Corrective Action Requests

3.8.1 Definition

A **Corrective Action Request (CAR)** will be established where:

- mistakes have been made in assumptions, application of the methodology or the project documentation which will have a direct influence the project results,
- the requirements deemed relevant for validation of the project with certain characteristics have not been met or
- there is a risk that the project would not be validated by TN or that emission reductions would not be able to be verified.

A **Clarification Request (CL)** will be issued where information is insufficient, unclear or not transparent enough to establish whether a requirement is met.

A **Forward Action Request (FAR)** will be issued when certain issues related to project implementation should be reviewed during the first verification.

3.8.2 Draft Validation

After reviewing all relevant documents and taken all other relevant information into account, the validation team issues all findings in the course of a draft validation report and hands this report over to the project proponent in order to respond on the issues raised and to revise the project documentation accordingly.

3.8.3 Final Validation

The final validation starts after issuance of the proposed corrective action (CA) of the CARs, CLs and FARs by the project proponent. The project proponent has to reply on those and the requests are "closed out" by the validation team in case the response is assessed as sufficient. In case of raised FARs the project proponent has to respond on this, identifying the necessary actions to ensure that the topics raised in this finding are likely to be resolved at the latest during the first verification. The validation team has to assess whether the proposed action is adequate or not.

In case the findings from CARs and CLs cannot be resolved by the project proponent or the proposed action related to the FARs raised cannot be assessed as adequate, no positive validation opinion can be issued by the validation team.

The CAR(s) / CL(s) / FAR(s) are documented in chapter 4.

3.9 Technical review

Before submission of the final validation report a technical review of the whole validation procedure is carried out. The technical reviewer is a competent GHG auditor being appointed for the scope 7 The technical reviewer is not considered to be part of the validation team and thus not involved in the decision making process up to the technical review.

As a result of the technical review process the validation opinion and the topic specific assessments as prepared by the validation team leader may be confirmed or revised. Furthermore reporting improvements might be achieved.

3.10 Final approval

After successful technical review of the final report an overall (esp. procedural) assessment of the complete validation will be carried out by a senior assessor located in the accredited premises of TÜV NORD.

Only after this step the request for registration can be started (in case of a positive validation opinion).

4 VALIDATION FINDINGS

In the following table the findings from the desk review of the published GS PDD/ Registered CDM project documents, visits, interviews and supporting documents are summarised**:**

Table 4-1: Summary of CARs, CLs and FARs issued

Clarification requests, corrective action requests and forward action requests

Table 1. CL from this validation

CL ID	01	**Section no.**	A.7	**Date:** 15/05/2018
Description of CL				
The ODA Declaration as per section A.7 is not provided				
Project participant response				**Date:**16/06/2018
The GS PDD Section A.7 is revised to include the same.				
Documentation provided by project participant				
1. Revised PDD *2. GS review feed back*				
DOE assessment				**Date:** 26/06/2018
The section A.7 of the revised GS-PDD submitted is checked and it is indicated that the project is funded by a combination of private equity and debt with no public funding involved. Therefore, the proposed project is not getting OFFICIAL DEVELOPMENT ASSISTANCE from any organization and the signed declaration is submitted by the PP to the DOE. Hence CL is closed				

Table 2. CAR from this validation

CAR ID	01	**Section no.**	All	**Date:**15/05/2018
Description of CAR				
The GS PDD is not as per the filling guideline and GS comments are also need to be addressed				
Project participant response				**Date:**16/06/2018
The revised PDD is submitted and now all the sections are filled as per the filing guidelines and GS comments				
Documentation provided by project participant				
1. Revised PDD *2. GS review feed back*				
DOE assessment				**Date:** 26/06/2018
The revised PDD submitted is line with filling guidelines and also the GS review comments are addressed and the assessment for the same is provided in table 3 below. 1. Safeguarding principles 2. SDG Indicators are filled in line with the requirements: "Gold standard for the global goals safeguarding principles & requirements" version 1.1 The assessment for the same is given in the table 3 and in table 5.4 below. The targets defined for the SDGs are in line with GS4GG requirements and also in line with GS review comments and the targets can be monitored, feasible, and realistic within the project design. Hence CAR is closed.				

<table>
<tr><td>CAR ID</td><td>02</td><td>Section no.</td><td></td><td>Date:12/04/2017</td></tr>
<tr><td colspan="5">Description of CAR</td></tr>
<tr><td colspan="5">Local Stakeholder consultation process – is not in line with GS review comment 7 and information given in the PDD depicts what it is available at the time of CDM registration, but GS requirements are missing</td></tr>
<tr><td colspan="4">Project participant response</td><td>Date: 27/04/2017</td></tr>
<tr><td colspan="5">The section E.1 and Section E.2 of PDD is revised to include the stakeholder feedback rounds.

The Validation team leader at the time of site visit witnessed the feed- back stakeholder round on 18/12/2017

Women members attended enthusiastically and constituted around 40% of them. They informed that the children especially girls are able to go to school to the next town because of the bridge constructed due to this project otherwise they have to trek around 12 KMs, now vehicles are also coming to the nearest stops and it takes 15 mins to reach the school.

Thus safety to children and less travel time most of the children are completing the high school now.
Also the points agreed by the PP during the start of the projects is completed now.</td></tr>
<tr><td colspan="5">Documentation provided by project participant</td></tr>
<tr><td colspan="5">PDD revised and LSC documents and Feedback round minutes are attached</td></tr>
<tr><td colspan="4">DOE assessment</td><td>Date: 03/06/2017</td></tr>
<tr><td colspan="5">The Section E.1 and E.2 of the revised GS PDD is checked and the section included how the stakeholder’s consultation feedback is taken.
The validation Team (VT) during the site visit observed the feedback from the stakeholders and no grievances are expressed.
Before the start of the project activity and before the submission of PDD for global stakeholder consultation in the UNFCCC website for CDM registration the PP conducted the stakeholder meeting in line with the CDM requirements. For the purpose of the GS registration the feedback round were solicited and invitation is given to the villagers, gram panchayat members, local school authorities, CEB officials NGOs etc.,
Also the local personnel were employed for maintenance work after giving the required trainings.
Thus the local stakeholder feed - back consultation was considered as adequate for the purpose of GS registration. The finding is closed.</td></tr>
</table>

Table 3. GS PFA and response review

<table>
<tr><th colspan="2">COMMENTS</th><th>PP Response</th><th>Assessment of DoE</th></tr>
<tr><td colspan="3">Comment/Request 1. Project Information</td><td></td></tr>
<tr><td>1.</td><td>The PD shall include relevant details on CDM registration i.e. CDM reference no., link of the CDM webpage and CDM registration date under Section A.1 of the PDD.</td><td>The relevant CDM details have been incorporated in section A.1 of the GS PDD.</td><td>The same is included in the revised GS PDD version 2.0 with the web link to the UNFCCC project page.</td></tr>
<tr><td colspan="3">Comment/Request 2. GS Eligibility</td><td></td></tr>
<tr><td>2.</td><td>1) The PD shall note that all GS4GG projects/activities are required to mandatorily apply the Gold Standard Gender Equality Guidelines & Requirements. The</td><td>1) The PD has been revised to apply all Gold Standard Gender Equality Guidelines & Requirements.</td><td>1) The Section A.8 of the PD is revised to include the required information

An Initial local stakeholders meeting was conducted by PP</td></tr>
</table>

	requirements consist of two pathways: a) Foundation gender-sensitive requirements: These requirements are mandatory for all projects and include compliance with the Gender Safeguarding Principles and Requirements and gender sensitive stakeholder consultations. b) Pro-active gender-responsive approach: This applies to projects that fulfill the requirements of the gender-sensitive grade and proactively conduct gender analysis and undertake actions to intentionally address gender gaps and contribute to gender equality and women's empowerment. Such projects are eligible to obtain certified gender impacts under SDG 5 and other relevant SDGs. There is a total of 3 for Pathway 1 steps to demonstrate compliance which requires all project developers to complete a gender safeguards assessment and gender-sensitive stakeholder consultations as part of initial project design and feasibility. Meeting these requirements enables projects to be 'Gender-sensitive'. After completing Step 3, project developers should be able to indicate how gender sensitive the project design is. This is a mandatory foundational requirement that applies to all Gold Standard certifications.		on 16th December, 2008 at the Paladeniya School and around 50 persons attended. The invitation is given through press advertisements and thus the project design is gender neutral. The same was assessed as part of the CDM validation at the time of CDM registration. The following facilities are created as the part of the CSR work and also as the result of the stakeholder meeting. • Construction of bridge over Kuruganga River connencting Adavikanda and Paladeniya • Yaya Road is constructed • A community Centre was constructed • The school main building was completed • Bus Turning point near house of Mr Karamanis. The same was observed during the validation visit. Also the women in particular were very happy because of the over bridge the girl children in particular are able to go to the high school as the bus facilities are made available to the nearby school otherwise they have to go by walk for almost 1.5 hours to the other side of the town. Also the travel time to Paladeniya was decreased by 30 minutes and before it was 2.30 hours. This is run river project and as such it does hinder women of their resources. Due to the fact that the project employs around 13 persons from the local village by giving skill enhancement training. Thus the local communities / marginalized communities are given opportunities. This was evident from the interaction with

			the local school teacher who indicated that the life style of the local villagers has increased. Also the Project is voluntary by the PP. There is no restrictions and compulsory labor. The Employment records are checked and found that some of the employees resigned of their own and moved to other projects. Thus employment is not by force. The project does not put women or Girls to hazard as it is run of river project and it supplies additional electricity to the local grid. Thus the gender equality requirements are very much followed.
	2) The VVB shall validate and confirm in the GS validation report if the project is in a High Conservation Value (HCV) area or not. Relevant evidences/supporting documents shall be listed in the validation report.	2) The DOE reply is provided below.	2) As per the section 5.2.10 of the registered CDM validation report there is no environmental impact by this project activity. The environmental approval of CEA dated 17/02/2005, extension of the environmental approval dated 02/01/2008, Generation License issued by Ministry of Power & Energy dated 01/03/2005 World Database on protected planets (IUCN, UNEP)[/iucn/], the Ramsar list of wetlands[/rmr/], and the United Nations list of protected areas[/pp/] are checked and confirmed that the project location is not in High Conservation Value (HCV) area.
	3) The PD shall discuss the impact of the project on the six critical issues identified for hydro power projects as part of Annex A of the Activity Requirements for Renewable Energy Projects. The VVB shall also validate the same and provide their opinion in the GS validation report. a) Competing uses of	3) The PD has been revised to include a discussion on the six critical issues identified for hydro power projects under section as A.2.	3) The Section A.2 of the revised PD version 2 the impact on the six critical issues by hydro power plant is included. The project capacity is 6.5 MW

	water resources b) Minimum ecological flow c) Impact on groundwater levels d) Sediment Management Plan e) Effectiveness of fish passages f) Mitigation measures for soil erosion		and it is run of river project with a provision for minimum discharge of 20 l/sec as per EER (Environmental Examination report).. Thus the water is discharged to the river again from the power house thus there exists no competition for the use of the water between the diversion channel and the power house discharge point and this will not have any impact on the ground water levels as such no ground water is extracted. The diversion weir at the tail race of the another power plant and no dam is constructed and will not affect the soil erosion in the downstream and the sediment deposits due to the implementation of this project activity is negligible. Thus all the six impacts are not applicable to this project. Since this small hydro project The Ceylon Electricity board does not mandate a comprehensive Environmental Impact Assessment rather an Environmental examination report will suffice for the grant of approvals.
	4) The PD shall note that training for staff members is a mandatory requirement for all hydro projects and shall therefore be included in the SD monitoring plan.	4) The employees have been trained and as part of the project regular training shall be provided to them. A monitoring parameter has been added accordingly in section B.7.1.	4) On the job training are provided to the employees working in the project. At least one training in a year is planned and which will be monitored.
	5) The PD shall revise the statement 'Since the project activity is a run-of-the-river project, thus WCD assessment is not required. Please note that all projects above 20 MW require a WCD report in line with GS requirements.	5) The PD Section A.2 has been revised to mention "Since the project activity is a run-of-the-river project of less than 20 MW capacity, thus WCD assessment is not required".	5) The section A.2 of the PD is revised and WCD requirements are not applicable as the project is less than 20 MW.

	6) The PD shall note that Gender Guidelines are mandatory for all projects to apply and it is imperative for every project to demonstrate that it is gender sensitive. Hence, the PD shall update the discussion provided under Section A.8 of the PDD. Please refer to comment 2.1 raised above for more details. 7) The PD shall provide further evidences such as organizational policies to justify the responses provided for the questions under Section A.8 of the PDD. The VVB shall also review the same and provide its opinion in the GS validation report.	6) The PD has been updated to include the discussions for Gender sensitive requirements under Section A.8 of the GS PDD. 7) The organizational policies like HR policy, EHS policy are provided herewith. The assessment from the VVB shall be a part of the validation report.	6) Section A.8 of the PD the gender guidelines are included and the Validation Team (VT) assessment is given for the Comment /Request No: 2 of the GS review in the same table above. . 7) The HR and EHS policies are verified and the organization is committed to provide equal employment opportunities without any discrimination based on gender, health and environment.
	***B.* Comment/Request 3. Application of the Applied Methodology**		
3.	1. The PD shall update the project in line with the most recent version of the methodology available at the time of GS submission i.e. the methodology version shall be updated from 13 to 18. 2. The PD shall make use of the most recent data vintage used in the calculation of GEF at the time of GS submission. The VVB shall validate the same.	1) The PD has been updated to apply the most recent version of the methodology available at the time of GS submission i.e. the methodology version 18. 2) The PD has used the latest data available for the calculation of GEF	1. The Revised PD is updated with the version 18 of the methodology. 2. The Grid Emission factor is updated with the latest data available published by Sri Lankan sustainable Authority for the host country. But for the verification period till 23/08/2017 the old GEF will be used to be in line with CDM verification cycle, also it is the more conservative value. The Emission factor calculated is based on the Tool to calculate the emission factor for an electricity system (Version 06). The values for build margin and Operating Margin (which are most recent and applicable vintage for the project) are

			sourced from Sri Lanka Sustainability authority website. Hence accepted.
Comment/Request 4. Sustainable Development Goals outcomes			
4.	1) Besides the SDG13 outcome, the PD shall specify the SDG target for SDG 7, 8 and 9 together with its monitoring indicator/parameter for each of three SDGs address by the project. For details, please refer to http://www.un.org/sustainabledevelopment/sustainable-development-goals/ 2) The PD shall note that the indicators shall be chosen based on the targets which are identified for each of the SDGs. For e.g. simply employment generation does not guarantee economic growth of the country. Or, paying salaries does not demonstrate decent work – a more relevant indicator here would be ensuring wages/salaries at par with local/national values. Hence, the indicators shall be relevant to the targets identified to capture the specific SDG impacts from this project.	1) The GS PDD is revised accordingly to specify the target for SDG 7, 8 and 9 along with its monitoring parameter. The SDG 9 has been removed the revised GS PD 2) The PD has be revised to monitor the indicators relevant to the targets identified to capture the specific SDG impacts from this project.	1) The target for the SDG 7, 8, 9 are included in the section B.7.1 of the revised GS PDD. 2) The targets for the indicators are selected on the basis of the host norms and hence acceptable
Comment/Request 5. Monitoring plan			
5.	Measurement method and procedures, Monitoring frequency, QA/QC procedures as well as purpose of data for each of three SDGs monitoring shall be updated in line with Comment # 5 above in the monitoring plan.	Measurement method and procedures, Monitoring frequency, QA/QC procedures as well as purpose of data for each of three SDGs monitoring have been updated in the revised PD.	The monitoring plan is updated as per the comment and in line with template filling guidelines. The section B.7.1 of the revised PD the monitoring plan for all the SDGs are included. hence accepted.
Comment/Request 6. Safeguarding Principles Assessment			
6.	1) The PD shall complete the entire safeguarding principles assessment by addressing all the principles listed in the GS Safeguarding Principles and Requirements document. For e.g. Principle # 3 shall be further discussed in line with six critical issues of Annex A of RE Activity	1) The PD provides the assessment in line with six critical issues of Annex A of RE Activity Requirements.	1. The safeguarding principles are discussed in detail in section D.1 of the PDD. But there is no mitigation measures required as it is a 6.5 MW run of a river project.

	Requirements. 2) The VVB shall validate the assessment of all the safeguarding principles as part of the GS validation process and include their opinion in the validation report.	2) The assessment from the DOE is part of the Validation report.	2. The detailed VVB assessment for the same is given in section 5.4 of this report
Comment/Request 7. Stakeholder Feedback Round			
7.	1) For Stakeholder Feedback Round, the PD shall design the consultation considering the various gender elements as required by the GS Gender Guidelines. For e.g., the PD shall put measures and actions to ensure equal gender participation, and collect inputs and insights from both men and women. If required, the PD shall also make any specific arrangements to ensure that all constituencies are engaged in the consultation (speak to women and men separately; have focus groups for women and focus groups for men before gathering them together to ensure their meaningful participation; adapt timing schedule to men's and women's working schedules).	1) The Stakeholder Feedback round was carried out in line with the GS4GG requirements. 2) Invitation and public notices were sent in advance of the meeting. Separate consultation with women was carried out before the SFR and feedback from women participants were observed. 3) There are no negative feedback for the project activity.	DOE has checked the LSC report and information provided in that was cross verified during onsite visit and interview with local stakeholders. A stakeholder feedback round was conducted by the PP on 16/12/2008 during the time of CDM registration and one during the time of DOE site visit on 18/12/2017 for GS registration and none of the stakeholders has given any feedback. Relevant section in the validation report is included with the summary of the stakeholders interview and list of stakeholders interviewed as well as a list of questions asked and their response.

5 VALIDATION ASSESSMENT SUMMARY

5.1 General Description of the Project Activity

5.1.1 Participation: Country Eligibility

- The host country has ratified the Kyoto protocol and has no cap on GHG emissions.
- The proposed small-scale PA is not part of any other certification scheme and is being validated as a GS project. The proposed project is registered with CDM EB with UN reference No. 3531
- The project entity has obtained a host country letter of approval, in line with CDM requirements
- No public funding and therefore no ODA used in the project activity
- The GHG considered is CO_2, which is eligible under GS
- The proposed PA falls under the Renewable Energy project category.

5.1.2 Project Participants

The project participant from host country for the project activity is Alternate Power Systems (Pvt.) Ltd., which is a private sector entity and the Project participant from annex-1 country Japan for the project activity is Mitsubishi UFJ Morgan Stanley Securities Co., Ltd as per the related UNFCCC project page.

5.1.3 Pre-feasibility Assessment

The project seeks registration under the retroactive project cycle since the starting date of the project activity is before the start of validation under GS. A complete pre-feasibility assessment is conducted by GS and responses reviewed and assessed by the VVB validation team.

5.1.4 Contribution to Sustainable Development Goals

Besides GHG emission reduction, the proposed project will contribute to sustainable development Goals. In line with the GS4GG requirements, the PP listed three sustainable SDG 13 - Climate Action, SDG 7 - Affordable and Clean Energy and SDG 8 - : Decent Work and Economic Growth for monitoring.

5.1.5 PD Editorial Aspects

The PP applied Gold Standard for the Global Goals "Key Project Information & Project Design Document (GS-PDD)" template version 1.1 (August 2017) for the filling the project information and which is the latest available template for gold standard website.

5.1.6 Technology to be employed

The project reduces GHG emissions by the operation of a 6.5 MW mini run-of-river hydro power plant on the Kuru Ganga River, in Kuruwita division of Ratnapura District in Sri Lanka. The project activity involves generation of electricity from the small-scale hydropower plant and supply of the power generated to the Sri Lankan national utility grid, the Ceylon Electricity Board. It is expected to generate 19,929 GWh of power per annum. The project has been registered under the CDM (registration date: 24 August 2010 CDM ref. num. 3531), Crediting Period: 24 Augusut 2010 – 23 August 2017.(Renewable).

5.1.7 Small Scale Projects

This is a small-scale project activity utilizing the approved and applicable CDM methodology AMS-I.D. Version 18 "Grid connected renewable electricity generation The Project is 6.5 MW hydro power project which is less than 15 MW and thus it is classified as small scale.

5.2 Project Baseline, Additionality and Monitoring Plan

5.2.1 Application of the Methodology & Methodological Tools

The project applies a valid version of the CDM Methodology AMS-I.D., version 18, in addition to the registered project under CDM "3531" which applied methodology AMS-I.D, version 13.0. All applicability conditions of the methodology and applied tools therein, have been met and outlined in the GSPDD. The project does not expect to result in significant emissions, related both to project and leakage, other than those listed in the methodology.

5.2.2 Project Boundary

The AMS I.D. specifies that project boundary encompasses the physical, geographical site of the renewable generation source. The project boundary is thus composed of diversion structure, penstock, powerhouse, tail race channel and the transmission system till switch yard. The project activity is connected to the Ceylon Electricity Board's grid.

The project boundary as validated during CDM registration process is deemed valid.

5.2.3 Baseline Identification

The basis of baseline emission reduction calculation is same in registered CDM PDD as well as the new version 18 of the methodology.

The baseline is established using the approach of combined margin

Baseline emissions in the year y (in tCO_2), BEy, due to displacement of grid-electricity are the product of the baseline grid emission factor for the year y, $EF_{grid,y}$ (in tCO_2/MWh) and the net electricity supplied by the project activity to the grid in the year y, EGy, (in MWh), over the crediting period can be evaluated as below:

$BEy = EGy * EF_{grid,y}$

Where:
BEy = Baseline emissions of the project activity in the year y (tCO_2)
EGy = Net electricity supplied to grid in year y (MWh)
EFgrid,y = Baseline emission factor of the grid in the year y (tCO_2/MWh)

Baseline emission factor is calculated as combined margin, consisting of a combination of operating margin (OM) and build margin (BM) factors according to the procedures prescribed in the 'Tool to calculate the emission factor for an electricity system' version 6.0.

The combined emission factor thus calculated is 0.88068 tCO_2e / MWh which is correct and the respective calculations are presented in the excel sheets.

However the PP intends to use the Emission factor value of 0.6766 tCO_2e / MWh as per the registered CDM PDD, till the end of the first crediting period for CDM Cycle that is till 23/08/2017. The same is considered more conservative than the updated Grid emission factor (GEF). The updated GEF will be used from 24/08/2017, i.e., from the start date of CDM second crediting period. For the ex- ante emissions the only the updated GEF is used. The verification under CDM is already over and the project is under request for issuance. The same amount of CERs will be used for the GS till 23/08/2017.

5.2.4 Calculation of GHG Emission Reductions

The calculation of GHG emission reductions has been done as per the applied and applicable methodology & related tools. Also, all data sources and assumptions for the ex-ante fixed parameters are appropriate and the corresponding calculations correct and applicable to the project activity. The estimated emission reductions are therefore plausible and conservative.

5.3 The Additionality Screen

Consideration of CDM in decision making (if project start is before validation)

The proposed GS project is registered under CDM programme and this section is not applicable. However, same was assessed from the CDM registered PDD, and validation report.

Previous announcement check

The completed GSPDD provides a statement that the proposed project activity was not previously announced without revenues from carbon credits. PP has demonstrated milestones to indicate that carbon finance was integral in the decision making processes

Alternatives

Not applicable as the baseline is pre-defined and prescribed by the applied methodology

Investment analysis

Not applicable as the project additionality is determined during CDM registration.

Barrier analysis

N/A

Common practice analysis

N/A

ODA Additionality Screen

The project will not involve public funding. Therefore, no ODA is to be involved. PP has provided an ODA declaration to the GS and the validation team. The same is included in GS PDD.

Technology transfer and / or knowledge innovation Summary

The turbines are imported from Gilbert Gilkes & Gordan Ltd, United Kingdom. The generator is imported from Alconza Spain.The Efficiency of the turbines and generators imported are having superior efficiency as per the Feasibility report than the available turbines and generators in the host country. Also the spare parts availability for the maintenance is also imported.

The technology is provided by Gilbert Gilkes & Gordan Ltd, United Kingdom and Alconza Spain.are without any technology transfer.

5.4 Monitoring Methodology & Monitoring Plan

Carbon Monitoring Plan

N/A, as the same validated monitoring plan is followed as described in the registered CDM PDD.

Sustainable Indicator Monitoring Plan

The SDG indicators has been assessed and found to be in compliance with the applied methodology and relevant GS annexes.

The GS Sustainability Monitoring Plan is demonstrated in Section B.7.1 of the GS PDD and in compliance with the requirements of GS4GG guidelines.

The validation team hereby confirms that the monitoring plan complies with the requirements of the GS4GG. The validation team has validated the monitoring plan in section B.7.3 of the GS PDD and confirms that the monitoring plan contains all necessary parameters that are clearly described and that the means of monitoring described in the plan complies with the requirements of GS4GG.

The result of outcome Safeguarding principles assessment in section D.1 of the GS PDD The Safeguarding principles assessment has been conducted sufficiently in consideration of the project technology and circumstances, following the guidelines of „Gold Standard for the Global Goals Safeguarding Principles & Requirements" Version 1.1 – Published March 2018.

It is observed that the project is small scale 6.5 MW run off river hydro power project and there is no mitigation measures required for any of the Safeguarding principles. Hence the assessment for Safeguarding principles is considered as adequate.

Table 5-4: Assessment of SDG Indicators

No	Indicator	Validation Opinion
1.	SDG 8.5: By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value	The operations and Maintenance of power plant creates job opportunities and the recruited personnel undergo training where they are informed about the working and site requirements. Staff will be trained and compensated better with long term jobs. 13 staffs were employed Few sample staffs were also interviewed during onsite assessment. HR records and Wage records will be the basis for the same.
2.	SDG 7.2 Access to affordable and clean energy services	The project is a run of river hydroelectric power project and generates at about 19.93 GWh of green power and supplies to the grid. Thus the share of green energy to the grid is increased due to the project activity. CEB Electricity Bill will be basis for the same.

No	Indicator	Validation Opinion
3	SDG 13- Climate Change / Safeguarding Principle 4.3.4: Release of pollutants	The Amount of Emission reduced by this project activity which otherwise emitted due to the generation power from fossil fuel intensive grid. The Grid Emission factor as published by Sri Lanka Sustainable authority will be taken for Emission reduction calculations

Project Management Planning

The project has been registered under the CDM (registration date: 24 August 2010 CDM ref. num. 3531), Crediting Period: 24/08/2010 to 23/08/2017 (renewable). 86, 687tCO2e during three monitoring periods through 24/08/2010 to 23/08/2017 have been issued by UNFCCC. The monitoring plan in section B.7 of the registered revised CDM PDD contains details of roles and responsibilities, QA/QC procedures, monitoring and training of personnel and trouble-shooting procedures.

5.5 Crediting Period

The project is under the retroactive Project Cycle with a project crediting period start date two years prior from the date of GS rating). Therefore, the project applies for GS retroactive credits.

5.6 Environmental & Social Impact Assessment (ESIA) and Safe Guarding Principles

Please see section D.1 of the registered CDM PDD for Environmental Impact Assessment.

Safeguarding principles:

3.1 Human Rights: The project is a run of river project and in the course of the project, the only land area required for the project activity is for the location of the power house. Thus, land acquired for the project does not affect the livelihood of the local people. The land acquired is purchased outright as evidenced from the chronology of events given in the registered CDM PDD.

3.2 Gender Equality and Women's Rights: The project does not affect the women right or infringes into it. The women are happy and due to this project activity and subsequent construction of road over bridge the girl children in particular are going to high school in time without any fear and the work load of the women are decreased because of the accessibility. There is no discrimination based on gender caste religion due to the project activity. All the persons employed are from local community. HR policy of the company stipulates reservation for women wherever there exists an opportunity for women to work.

3.3 **Community Health, Safety and Working Conditions:** No hazards are envisaged from this project activity and employment and working hours are based on the national guidelines, hence no mitigation required

3.4.1 Cultural Heritage, Indigenous Peoples, Displacement and Resettlement, 3.4.2 Forced Eviction and Displacement, 3.4.3 Land Tenure and Other Rights, 3.4.4 Indigenous Peoples:

This is run off river hydro project, there is no displacement of people or resettlement and also the project proponent received all related approvals from the host country government for the operation of the hydro power plant. Hence no mitigation required.

3.5 Corruption: The host country has ratified the UN convention against corruption. Hence the mitigation measures are not required
http://www.unodc.org/unodc/en/treaties/CAC/signatories.html

3.6.1 Labour Rights: During the site visit and subsequent discussion with the employees that their salaries are credited through the bank and also it is on par with the industrial standards in the region. The company is also having a HR policy to have 1/3rd women representation wherever possible and all those employees who liaise from the head office are women, (3 persons) for this project. Also the employment records and attendance sheets indicate that the name of employees have the changed during the last 5 years and indicate that the employment is not forced.
The employees indicate that they very happy to work nearer to their native residence and happy to be with their families. The employee number of 13 is not adequate for them to form a union. Thus no mitigation is required.

3.6.2 Negative Economic Consequences: The Project techno commercial evaluation is done and the life cycle cash flow analysis is done for the entire life period. During the CDM registration additionality of the project is proved considering the financial viability and with the sale of CERS the project is financially viable as proved in the registered CDM PDD. The project improves the local economy by providing additional power and employment thus no negative economic consequences is envisaged.

4. ENVIRONMENTAL & ECOLOGICAL SAFEGUARDING PRINCIPLES
4.1.1 Emissions
4.1.2 Energy Supply
4.2.1 Impact on natural water patterns and flow
4.2.2 Erosion and/or water body stability
4.3.1 Landscape Modification and Soil
4.3.2 Vulnerability to Natural Disaster

4.3.3 Genetic Resources
4.3.4 Release of pollutants
4.3.5 Hazardous and Non-hazardous Waste
4.3.6 Pesticides and fertilizers
4.3.7 Harvesting of forests
4.3.8 Food
4.3.9 Animal Husbandry
4.3.10 High Conservation Value Areas and Critical Habitats
4.3.11 Endangered Species

The Project is a runoff river 6.5 MW project and as such the above principles do not apply. The Energy generated is renewable power and no emissions, pollutants and hazardous wastes are associated with the generation of hydro power. The river course is not altered and water is diverted through a pen stock. Thus it will have not any impact on soil erosion, modification of the land. The disaster management is not envisaged as there is no storage of water. The project is not coming cultivable land thus it will have any impact on food produce or its intake. The project does not affect animal husbandry and forestry and the Environmental clearance given for the project indicates that the project is not coming under high conservancy area as the host country is signatory to international convention on biological diversity
https://www.cbd.int/information/parties.shtml.
Thus no mitigation measures are required as such there is no impact.

5.7 Comments by Local Stakeholders

The initial local stakeholder was conducted as part of the CDM registration dated 16th December, 2008, please refer to the registered CDM PDD and Final Validation report.

For the purpose of the GS registration the PP invited the local stakeholder feedback consultations on 18/12/2017 as a part of the VT site visit.

A detailed presentation was given about the project and its impact on local stakeholders by the consultant representative.

All sections of the Stakeholder Consultation report have been duly completed in accordance with GS guidelines. Continuous input/Grievance Mechanism has been included in section E.1 of the GS PDD.

In the validation work plan submitted before the validation site visit, it was clearly indicated by the validation team that, PP shall arrange appropriately the relevant stakeholders for interview during onsite assessment.

Also based on the GS review dated 28/10/2017 PP has invited the stakeholders considering the gender sensitivity invited many in the project area but around 50 members attended including PP employees. The PP started the invitations one month well in advance through emails, notices displayed (temple, school and community hall), letters to NGOs, local body officials, village heads and community leaders. A special invitation is given to women through their self-help group and women vocational training centres.

During the feedback round the validation team verified that all the relevant stakeholders invited through personal invitation, notice boards and emails

During the interactions the majority of the stakeholders were happy and most of the issues raised by them at the start of the project activity had been fulfilled. As a part of CSR activity the PP is fulfilling the requirements especially for the maintaining and/or creating new infrastructures of school, temple and local bridge roads.

The stakeholders are well aware of the grievance mechanisms and informed of the contact names/ phones / mail addresses of the concerned personnel's of the PP at local as well as at head office level at Colombo.

In the feedback round for the LSC process however stakeholders did not provide any additional comment.

Hence the stakeholder consultation process, feedback rounds and grievances mechanism are in line with Gold Standard for the global goals stakeholder consultation & engagement procedure, requirements & guidelines, version 1.1.

6 VALIDATION OPINION

M/s Alternate Power Systems (Pvt.) Ltd. the TÜV NORD JI/CDM Certification Program (CP) to carry out the validation for Gold Standard GS project:

“Adavikanda, Kuruwita Division Mini Hydro Power Project”.

The Gold Standard documentation and supporting documents were reviewed against the criteria as set out in the Gold Standard GS4GG Requirements, and respective Annexes. The findings and conclusions on the project’s compliance with the Gold Standard are recorded in this document. However, this document must be seen in conjunction with the CDM validation report [/VAL/] and registered PDD.

In the course of the validation for GS registration 2 Corrective Action Requests (CARs) and 1 Clarification Request (CL) were raised and successfully closed. No Forward Action Request (FAR) has been raised.

In detail the conclusions can be summarised as follows:

- ✓ The project meets all eligibility criteria as laid out by the GS4GG
- ✓ The project involves the implementation of new hydro power based renewable power plant
- ✓ The project does not result in negative social, environmental and/or economic impacts
- ✓ The project contributes to Sustainable Development.
- ✓ The project additionality is sufficiently justified in the registered CDM PDD and GSPDD
- ✓ The project does not result in diversion of ODA
- ✓ Conservative assumptions were applied in the project description
- ✓ The monitoring plan of SDG Indicators are transparent and adequate
- ✓ The project meets the stakeholder consultation requirements
- ✓ The calculated emission reductions of **17,549 tCO_2e** are most likely to be achieved on annual basis from the date of GS registration.

The conclusions of this report show, that the project, as it was described in the project documentation, is in line with all criteria applicable for the validation.

Place, 25/09/2018

Prakash

Prakash Kumar Mishra
TÜV NORD JI/CDM CP

Validation Team Leader

7 REFERENCES

Table 7-1: Documents provided by the project participant

No.	Author	Reference	Title	References to the document	Provider
1.	PP	**/GSPDD/**	• Gold standard PDD titled „Adavikanda, Kuruwita Division Mini Hydro Power Project“ version 1 dated 16/11/2017 • Gold standard PDD titled „Adavikanda, Kuruwita Division Mini Hydro Power Project“ version 2.0 dated 27/06/2018 • Gold standard PDD titled „Adavikanda, Kuruwita Division Mini Hydro Power Project“ version 3.0 dated 26/07/2018 • Gold standard PDD titled „Adavikanda, Kuruwita Division Mini Hydro Power Project“ version 4.0 dated 19/09/2018		PP
2.	PP	**/LSCR/**	• Invitation_Letter_email and related confirmations for the feedback round • LSC information submitted at the time validation • Photos of LSC feedback meeting conducted		PP
3.	PP	**/ODA/**	ODA Declaration by Alternate Power system		PP
4.	PP	**/EER/**	• Geological Report dated February‘2004. • Environment Monitoring Plan dated 07.05.2008 • Approval from CEB for sale of electricity dated 31.10.2003. • No Objection Certificate (NOC) from Chief Minister Office of Sabaragamuwa Province dated March 2001. • NOC from Department of Agrarian Services, Ratnapura dated 08.07.2004. • Water Right from Divisional Secretary for diversion of water dated 14.01.2004, • NOC from Irrigation Department dated 09.11.2004.		

No.	Author	Reference	Title	References to the document	Provider
			• Approval from National Water Supply & Drainage Board dated 16.11.2004. • Renewable Energy Permit from Sri Lanka Sustainable Energy Authority dated 24.10.2008.		
Other Documents					
5.	PP	**/EMPL/**	Sample employment record by PP, list of persons employed at the project site and supporting staff at HO dated 17/12/2017 HR Policies by the group Companies Training records from the start of the project.		PP
6.	PP	**/EOHS/**	Environment and quality policy by the PP		PP
ER spreadsheets					
7.	PP	**/ER/**	ER calculation spreadsheet with respect to GS PDD • version 1 dated 16/11/2017 • version 2 dated 27/06/2018 • Version 3 dated 26/07/2018 • Version 4 dated 19/09/2018		PP

Table 7-2: Background investigation and assessment documents

No.	Author	Reference	Title	References to the document	Provider
1	UNFCCC	**/AMS-I D/**	Small scale methodology : AMS-I.D Grid connected renewable electricity generation version 18		Other
2	DOE	**/CPM/**	TÜV NORD JI / CDM CP Manual (incl. CP procedures and forms)		Other
3	IPCC	**/IPCC/**	1. 1996 IPCC Guidelines for National Greenhouse Gas Inventories: work book 2. 2006 IPCC Guidelines for National Greenhouse Gas Inventories: work book	www.ipcc-nggip.iges.or.jp	Other
4	UNFCCC	**/KP/**	Kyoto Protocol (1997)	http://unfccc.int/kyoto_protocol/items/2830.php	Other
5	UNFCCC	**/MA/**	Decision 3/CMP. 1 (Marrakesh – Accords)	http://cdm.unfccc.int/Reference/COPMOP/index.html	Other

No.	Author	Reference	Title	References to the document	Provider
6	UNFCCC	/PDD/	Project Design Document for CDM project: “Adavikanda, Kuruwita Division Mini Hydro Power Project” Version 03 dated 30/03/2010.	http://cdm.unfccc.int/UserManagement/FileStorage/6HMKDOAC2QVJUPY0XZ9GSE431NRI5W	Other
7	UNFCCC	/VAL/VER/	Validation report under CDM dated 30/03/2010 and verification documents from the project page UNFCCC no 3531	http://cdm.unfccc.int/Projects/DB/RWTUV1269443428.12/view	
8	UNFCCC	/PS/	CDM Project Standard for project activities (Version 1.0)	http://cdm.unfccc.int/Reference/Standards/index.html	Other
9	UNFCCC	/VVS/	CDM Validation and Verification Standard for project activities (Version 1.0)	http://cdm.unfccc.int/Reference/Standards/index.html	Other
10	UNFCCC	/PS/	CDM Project Standard for project activities (Version 1.0)	http://cdm.unfccc.int/Reference/Standards/index.html	Other
11	UNFCCC	/TL/	Tool to calculate the emission factor for an electricity system Version 06.0	http://cdm.unfccc.int/Reference/tools/index.html	Other
12	UNFCCC	/GT/	Glossary “CDM terms” (version 09.1)	https://cdm.unfccc.int/filestorage/e/x/t/extfile-20150226124447549-glos_CDM.pdf/glos_CDM.pdf?t=UmZ8bnFjODI3fDCW9A3vJwR03kQQh4sbLiYu	Other
13	Gold Standard	/GSR/	Gold standard for global goals - GS4GG documents and requirements as following but not limited to: Principles & Requirements, Version 1 – Published July 2017 Safeguarding Principles & Requirements, Version 1 – Published July 2017 Stakeholder Consultation & Engagement Procedure, Requirements & Guidelines, V1 - Published July 2017 Renewable Energy Activity Requirements, Version 1 – Published July 2017 Renewable Energy Label – Product Requirements, Version 1 - Published	https://www.goldstandard.org/globalgoals	GS

No.	Author	Reference	Title	References to the document	Provider
			August 2017 Gold Standard for the Global Goals Key Project Information & Project Design Document (PDD) template, Version 1.1 – August 2017 (101.1-T-PDD_rev1) Gold Standard for the Global Goals Stakeholder Consultation Report template, Version 1 – Published July 2017 (101.1-T-SCR) OFFICIAL DEVELOPMENT ASSISTANCE DECLARATION template, (501-ER-T-ODA-Declaration-Template) Cover Letter template, (GS4GG-Cover-Letter-Template-1) Terms and Conditions template (GS4GG-Templates-Terms-and-Conditions)		
14		**/MDG/**	Millennium Development Goals country/regional Report		
15	/PP/	**/HR/**	Human resource policy of Vallibel group		PP

Table 7-3: Websites used

Reference	Link	Organisation
/cd4cdm/	www.cd4cdm.org	UNEP Risoe Centre
/gs/	https://www.goldstandard.org/	Gold Standard Foundation
/ipcc/	www.ipcc-nggip.iges.or.jp	IPCC publications
/verra/	http://verra.org/	Voluntary Carbon Standard
/unfccc/	http://cdm.unfccc.int	UNFCCC
/goog/	https://earth.google.com/	Google
/gs4gg/	https://www.goldstandard.org/	Gold Standard for global goals
/reg/	https://mer.markit.com/br-reg/public/index.jsp?entity=project&sort=project_name&dir=ASC&start=0&entity_domain=Markit,GoldStandar	GS project Registry – Markit
/pp/	***C.*** www.protectedplanet.net esp. https://www.protectedplanet.net/peak-	***D.*** World Database on protected planets

Reference	Link	Organisation
	wilderness-conservation-forest	
E. /rmr/	*F.* www.ramsar.org/pdf/sitelist.pdf	*G.* RAMSAR The Convention on Wetlands
H. /iucn/	*I.* http://data.iucn.org/dbtw-wpd/edocs/UNLNP-2003.pdf	International Union for Conservation of Nature and Natural Resources (IUCN): United Nations List of Protected Areas
J. /SLSA/	http://www.energy.gov.lk/spec/fual.php	Sri Lanka Sustainable Energy Authority

Table 7-4: List of interviewed persons

Reference	MoI[1]		Name	Organisation / Function
/IM01/	V	☒Mr. ☐Ms	Russell De Silva	CEO Alternate Power Systems Pvt Ltd
/IM01/	V	☒Mr. ☐Ms	M G Nuwan Nilanka	Assistant Engineer Alternate Power Systems Pvt Ltd
/IM01/	V	☒Mr. ☐Ms	Y H S A Shantha	Project Coordinating Executive APSPL
/IM01/	V	☒Mr. ☐Ms	H A V P Sampath	MV Panel Electrical Executive, Alternate Power Systems Pvt Ltd
/IM01/	V	☒Mr. ☐Ms	M H A Kumara	Stores Incharge APSPL
/IM01/	V	☒Mr. ☐Ms	P P S Kumara	Switch Board Operators APSPL
/IM01/	V	☒Mr. ☐Ms	G W Ajith Presanna	Switch Board Operators APSPL
/IM01/	V	☐Mr. ☒Ms	C Alahapperama	HR Executive APSPL
/IM01/	V	☐Mr. ☒Ms	I Nawaratna	Relationship Manager APSPL

Reference	MoI[1]		Name	Organisation / Function
/IM02/	V	☒Mr. ☐Ms	Jimmy Sah	Consultant - Infinite Solutions LLP Limited
/IM03/	V	☒Mr. ☐Ms	N V C Narasingha	Villager , retired School Teacher
/IM03/	V	☒Mr. ☐Ms	P T S Jayaratne	Villager
/IM03/	V	☒Mr. ☐Ms	D D A S Jayaratnre	Villager
/IM03/	V	☒Mr. ☐Ms	A G L Kumara	Villager
/IM03/	V	☐Mr. ☒Ms	N Samanthi	Villager
/IM03/	V	☐Mr. ☒Ms	D D I Roopasingh	Villager
/IM03/	V	☐Mr. ☒Ms	R Gunasekara	Villager
/IM03/	V	☒Mr. ☐Ms	S Leelawathi	Villager

1) Means of Interview: (**T**elephone, **E**-Mail, **V**isit)

ANNEX

A1: Validation Protocol

A2: Assessment of Baseline Identification

A3: Assessment of Financial Parameters

A4: Assessment of Barrier analysis

A5: Outcome of the GSCP

A6: Statement of competence of involved Personnel

ANNEX 1: VALIDATION PROTOCOL

Table A-1: Requirements Checklist

Checklist Item (incl. guidance for the validation team)	**Validation Team Comments** (justification and substantiation of information, data and evidences)	**Ref.**	**Draft Concl.**	**Final Concl.**
A. General Description of Project Activity				
A.1. Project GS Eligibility Screen				
A.1.1. Is the proposed project activity a small-scale, a large-scale or a micro-scale, as defined by the Gold Standard?	*Description:* The proposed CDM-GS project activity is small-scale and utilizing the small-scale CDM methodology AMS-I D, version 18.0 *Justification of evidences:* The registered CDM PDD/GSP has been checked and interviews conducted with the PP *Conclusion:* The proposed project is small-scale project,	/CDM PDD/ /GSPDD/ /GSR/	OK	OK
A.1.2. Is the host country eligible for Gold Standard CDM and Gold Standard JI project activities? Has the host country a quantitative reduction target under the Kyoto Protocol?	*Description:* Host country, Sri Lanka is a Non-Annex 1 country, and has ratified the Kyoto protocol. Sri Lanka has no quantitative cap on emissions *Justification of evidences:* The PP has demonstrated in section A.2 of the GSPDD that the host	/CDM PDD/ /GSPDD/ /gs/	OK	OK

Checklist Item (incl. guidance for the validation team)		**Validation Team Comments** (justification and substantiation of information, data and evidences)	**Ref.**	**Draft Concl.**	**Final Concl.**
		country is eligible for Gold Standard project activities *Conclusion:* India is eligible for GS project activities			
A.1.3.	Is the Project activity a Renewable Energy Supply category, End-use Energy Efficiency Improvement category, or Waste Handling and Disposal category?	*Description:* The proposed project activity is a Renewable Energy Project Category as defined by the GS *Justification of evidences:* The GS4GG renewable energy requirement has been checked against the PDD *Conclusion:* The proposed project is under the Energy Efficiency Category.	/GSPDD/ /gs4gg/	OK	OK
A.1.4.	Are the greenhouse gases (GHGs) eligible under the Gold Standard? Only Carbon Dioxide (CO2), Methane (CH4) and Nitrous Oxide (N2O) are allowed	*Description:* Only carbon dioxide is considered and in the emission reduction calculations. Justification of evidences: The PDD and applied methodologies as well as GS requirements have all been consulted. Conclusion: Carbon dioxide is eligible under the GS	/dna-HP/ /PDD/ /GSP	OK	OK
A.1.5.	Does the proposed GS project activity receive Official Development Assistance	*Description:* As per CDM registered PDD as well as GS PDD no public funding is	/CDM PDD/	OK	OK

Checklist Item (incl. guidance for the validation team)		Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
	(ODA)? PP to submit the list of donors/investors and financing plan for validation assessment.	involved. PP has also furnished the DOE with the ODA declaration Justification of evidences: A signed declaration has been provided Conclusion: No ODA is involved.	/GSPDD/ /ODA/		
A.1.6.	Was the project previously announced as going ahead without revenues from carbon credits? - Is the start date of the proposed project activity before the time of first submission (LSC of documents for PFA) to the Gold Standard (retroactive registration)? - If not previously announced, has a statement been provided in the GS PDD? - If applicable, has it undergone a positive PFA? - Is the project applying for retroactive crediting? GS labels only allowed for realized emission reductions up to a maximum of two years prior to GS registration.	*Description:* The project is registered under CDM and verified for 3 monitoring periods. The start date of the project activity is 21/08/2008 as per registered CDM PDD. The GS start Date is two year prior to the GS registration as the project The project is previously announced and the project ID is GS 6110 and Pre-feasibility assessment is done and the comments are addressed by the PP and validated by the VT. The preliminary round comments are closed. Justification of evidences: GS PDD, GS project data base CDM project page are all checked. Conclusion: Thus it is concluded that the start date of the project activity is before the first submission and the project is announced and got the GS project ID and the project is going for retrospective crediting i.,e, two years before the date of GS registration and PFA is positive	/CDM PDD/ /GSPDD/ /unfccc/ /GS/	OK	OK

Checklist Item (incl. guidance for the validation team)	**Validation Team Comments** (justification and substantiation of information, data and evidences)	**Ref.**	**Draft Concl.**	**Final Concl.**
A.1.7. Is the project registered under other certification schemes or is the proposed project activity claiming emission reductions from different vintages. - Check for possible double-registration - Check in case of possible double-counting of certificates. - Signed declaration from PP obtained?	*Description:* The PP has stated that the project activity is not claiming any other environmental credits, or equivalent and that the project is registered under CDM and now under GS validation and registration to claim retroactive GS CERs two years before the date of registration and fixed crediting period. *Justification of evidences:* The GS PDD has been checked against the CDM PDD. The UNFCCC website, the GS website and the VCS websites have been cross-checked *Conclusion:* The proposed project will be a CDM-GS project	/CDM PDD/ /GSPDD/ /gs/ /unfccc/ /vsc/	OK	OK
A.2. PDD editorial aspects *The PDD used as a basis for validation shall be prepared in accordance with the latest template and guidance from the CDM Executive Board available on the UNFCCC CDM website.*				
A.2.1. Has the latest version of the PDD form been applied?	The latest GS PDD template "Version 1.1" was used for the GS rating,	/GSPDD/ /GSR/	OK	OK

Checklist Item (incl. guidance for the validation team)	**Validation Team Comments** (justification and substantiation of information, data and evidences)	**Ref.**	**Draft Concl.**	**Final Concl.**
A.2.2. Has the PDD been duly filled in accordance with the latest guidance(s)?	*Description:* The GS PDD is not filled in line with the filling requirements *Justification of evidences:* GS PDD is checked *Conclusion:* CAR 1 is raised	/GSPDD/ /GSR/	~~CAR 1~~	OK
A.3. Technology to be employed *Validation of project technology focuses on the project engineering, choice of technology and competence/ maintenance needs. The DOE should ensure that environmentally safe and sound technology and know-how is used.*				
A.3.1. Does the PDD contain a clear, accurate and complete project description?	*Description:* The PDD contains a clear and accurate project description as validated under the CDM stream *Justification of evidences:* The PDD was checked *Conclusion:* The latest PDD contains a clear and accurate project description.	/CDM PDD/ /GSPDD/ /GSR/	OK	OK

Checklist Item (incl. guidance for the validation team)	**Validation Team Comments** (justification and substantiation of information, data and evidences)	**Ref.**	**Draft Concl.**	**Final Concl.**
A.3.2. Is this description in accordance with the real situation or (in case of greenfield projects) is it most likely that the project will be implemented acc to the project description?	*Description:* The project is a CDM registered project and applies for GS label. *Justification of evidences:* N/A *Conclusion:* The description of the proposed project activity in the PDD is as per the real situation.	/CDM PDD/ /GSPDD/	OK	OK
A.3.3. In case the project involves alteration of the existing installation or process, is a clear description available regarding the differences between the project and the pre-project situation?	Not applicable	/CDM PDD/ /GSPDD/	OK	OK
A.3.4. Does the project design engineering reflect current good practices?	*Description:* The proposed project activity is a renewable hydro power project. *Justification of evidences:* The project uses turbine generators from United Kingdom. *Conclusion:* The project employ the latest technology in the region.	/CDM PDD/ /GSPDD/	OK	OK

Checklist Item (incl. guidance for the validation team)	**Validation Team Comments** (justification and substantiation of information, data and evidences)	**Ref.**	**Draft Concl.**	**Final Concl.**
A.3.5. Does the project use state of the art technology or would the technology result in a significantly better performance than any commonly used technologies in the host country?	*Description:* See above *Justification of evidences:* *Conclusion:*	/CDMPDD/ /GSPDD/	OK	OK
A.3.6. Does the project make provisions for meeting training and maintenance needs?	*Description:* Yes, this is project make provisions for meeting training and maintenance needs. *Justification of evidences:* The training records has been checked as well as the interviews with PP *Conclusion:* The project makes provisions for meeting training and maintenance needs	/CDM PDD/ /GSPDD/ /EMPL/	OK	OK
A.4. Small scale project activity *It is assessed whether the project qualifies as small-scale CDM project activity*				
A.4.1. Does the project qualify as a small scale CDM project activity as defined in decision 4 / CMP.1 annex II?	*Description:* Please refer to the registered CDM PDD and GS PDD *Justification of evidences:*	/CDMPDD/ /GSPDD/	OK	OK

Checklist Item (incl. guidance for the validation team)	**Validation Team Comments** (justification and substantiation of information, data and evidences)	**Ref.**	**Draft Concl.**	**Final Concl.**
	Conclusion:			
A.4.2. Does the project apply one of the approved small scale categories and any methodology and tool referred therein?	*Description:* **K.** Yes, please refer to the registered CDM PDD and the completed GS PDD *Justification of evidences:* CDM PDD and GS PDD was checked. *Conclusion:* the Project applies on of the approved and applicable methodology.	/CDMPDD/ /GSPDD/ /AMS-ID/	OK	OK
A.4.3. Is the small scale project activity not a debundled component of a larger project activity?	*Description:* This is a registered CDM project this check is no further required. *Justification of evidences:* *Conclusion:*	/CDMPDD/ /unfccc/	OK	OK
A.4.4. Is an assessment of the environmental impacts of the proposed SSC CDM/GS project activity required by the host Party?	*Description:* Being a registered CDM project activity, this check was performed during CDM registration. Please refer the registered CDM PDD. *Justification of evidences:* *Conclusion:*	/CDMPDD/	OK	OK
A.4.5. Who are the project participants?	*Description:* The project participant is Alternate Power systems Private Limited and Mitsubishi UFJ Morgan Stanley Securities Co., Ltd *Justification of evidences:*	/CDMPDD/ /GSPDD/	OK	OK

Checklist Item (incl. guidance for the validation team)	**Validation Team Comments** (justification and substantiation of information, data and evidences)	**Ref.**	**Draft Concl.**	**Final Concl.**
	The CDM validated PDD has been checked *Conclusion:* The PP has been validated	/unfccc/		
B. Project Baseline, Additionality and Monitoring Plan				
B.1. Application of the Methodology				
B.1.1. Does the project apply an approved and applicable CDM/GS VER methodology and a valid version thereof?	*Description:* The proposed project applies the approved and applicable CDM Small scale methodology: AMS-I.D Grid connected renewable electricity generation version 18. *Justification of evidences:* Small scale methodology: AMS-I.D Grid connected renewable electricity generation version 18 and applicability justification has been assessed in the GS PDD. *Conclusion:* A valid and approved CDM baseline and monitoring methodology has been applied	/CDM PDD/ /GSPDD/ /AMS-ID/	OK	OK

Checklist Item (incl. guidance for the validation team)	**Validation Team Comments** (justification and substantiation of information, data and evidences)	**Ref.**	**Draft Concl.**	**Final Concl.**
B.1.2. Is the applied methodology identical with the version available on the UNFCCC or GS website?	*Description:* The applied methodology is identical with the version in the UNFCCC page and latest version thereof. *Justification of evidences:* The methodology has been checked and validated under CDM *Conclusion:* OK	/CDMPDD/ /unfccc/ /gs/ /AMS-ID/	OK	OK
B.1.3. Are all applicability criteria in the methodology, the applied tools or any other methodology component referred to therein fulfilled?	*Description:* All applicability conditions of the applied methodology have been articulated in the CDM PDD and GS PDD are met *Justification of evidences:* The GS PDD has been checked against the methodology applicability conditions *Conclusion:* All methodology applicability conditions have been met	/CDMPDD/ /GSPDD/ /AMS-ID/	OK	OK

Checklist Item (incl. guidance for the validation team)	**Validation Team Comments** (justification and substantiation of information, data and evidences)	**Ref.**	**Draft Concl.**	**Final Concl.**
B.1.4. In case one or more applicability criteria have not been met, has the validation team requested clarification to, revision of or deviation from the methodology in accordance with the latest guidelines?	*Description:* All applicability conditions have been met *Justification of evidences:* See above *Conclusion:* See above	/CDMPDD/ /GSPDD/	OK	OK
B.1.5. Is the project in accordance with every other stipulation or requirement mentioned in all sections of the methodology and in guidances for approved methodologies provided by the GS or CDM EB?	*Description:* The project fully complies with all sections of the CDM methodology *Justification of evidences:* The PDD has been validated against all sections of the methodology *Conclusion:* The methodology have been complied with	/CDMPDD/ /GSPDD/	OK	OK
B.2. Project Boundaries *Project Boundaries are the limits and borders defining the GHG emission reduction project*				
B.2.1. Are the project's spatial boundaries (geographical) clearly defined?	*Description:* It is already validated in the CDM PDD and the same is given in GS PDD *Justification of evidences:* The validated PDD has been checked	/CDMPDD/ /GSPDD/	OK	OK

Checklist Item (incl. guidance for the validation team)	**Validation Team Comments** (justification and substantiation of information, data and evidences)	**Ref.**	**Draft Concl.**	**Final Concl.**
	Conclusion: OK			
B.2.2. Are all sources and GHGs included in the project boundary as required in the applied methodology?	Description: All sources of GHG in the project boundary have been validated in the CDM PDD. Only CO2 has been considered as main baseline source *Justification of evidences:* The PDD was checked *Conclusion:* All GHG sources are included	/GSPDD/ /CDMPDD/ /gs/	OK	OK
B.2.3. In case the methodology allows to choose whether a source and/or gas is to be included, is the choice sufficiently explained and justified?	*Description:* Not applicable *Justification of evidences:* *Conclusion:*	/PDD/ /GSP/ /AMS-ID/	OK	OK
B.3. Baseline Identification *The choice of the baseline scenario will be validated with focus on whether the baseline is a likely scenario, and whether the methodology to define the baseline scenario has been followed in a complete and transparent manner.*				

Checklist Item (incl. guidance for the validation team)	**Validation Team Comments** (justification and substantiation of information, data and evidences)	**Ref.**	**Draft Concl.**	**Final Concl.**
B.3.1. What possible baseline scenarios have been considered?	*Description:* The baseline is pre-defined by the methodology and also it is a registered CDM project hence this question is not applicable. *Justification of evidences:* N/A *Conclusion:* N/A	/CDMPDD/ /GSPDD/ /unfccc/	OK	OK
B.3.2. Is the list of alternatives complete? (VVS, §§ 123-124)	☐ All plausible alternative scenarios listed in the approved methodology have been considered. In the course of document review and site visit, it has been validated that no other alternatives which supply comparable outputs and / or services are to be taken into consideration. Thus no plausible scenario has been omitted. ☐ The following alternative scenarios/options have been omitted. Corresponding CAR(s)/CL(s) has /have been issued N/A	/CDMPDD/ /GSPDD/ /AMS-ID/	OK	OK
B.3.3. What has been identified as the baseline scenario?	*Description:* Please see above *Justification of evidences:* The methodology and PDDs have been checked *Conclusion:* No further action is required	/CDMPDD/ /GSPDD/ /AMS ID/	OK	OK

Checklist Item (incl. guidance for the validation team)	**Validation Team Comments** (justification and substantiation of information, data and evidences)	**Ref.**	**Draft Concl.**	**Final Concl.**
B.3.4. Has the baseline scenario been determined according to the methodology?	☒ All plausible alternative scenarios listed in the approved methodology have been considered. In the course of document review and site visit, it has been validated that no other alternatives which supply comparable outputs and / or services are to be taken into consideration. Thus no plausible scenario has been omitted. Moreover please see above. ☐ The following alternative scenarios/options have been omitted. Corresponding CAR(s)/CL(s) has /have been issued	/CDMPDD/ /GSPDD/ /AMS ID/	OK	OK
B.3.5. Has any plausible alternative scenario been excluded?	For details of the assessment regarding the evaluation of the baseline scenario pl. refer to table A-2. ☒ The determination has been carried out as per the procedure contained in the applied methodology. ☐ The following CARs / CLs have been identified with respect to the selection of the baseline scenario:	/CDMPDD/ /GSPDD/ /AMS ID/	OK	OK
B.3.6. Is the identified baseline scenario reasonable and has the baseline scenario been determined using conservative assumptions where possible, including relevant references and sources?	For details of the assessment regarding the evaluation of the baseline scenario pl. refer to table A-2. ☒ No plausible baseline scenario has been excluded. ☐ The following plausible baseline scenarios have been excluded though no adequate justification has been provided for elimination. The following CARs / CLs have been issued:	/CDMPDD/ /GSPDD/ /AMS ID/	OK	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
B.3.7. Does the baseline scenario sufficiently take into account relevant national and/or sectoral policies, macro-economic trends and political aspirations?	*Description:* N/A *Justification of evidences:* *Conclusion:*	/CDMPDD/ /GSPDD/ /AMS ID/	OK	OK
B.3.8. Is the baseline scenario determination compatible with the available data and are all literature and sources clearly referenced?	*Description:* N/A *Justification of evidences:* *Conclusion:*	/CDMPDD/ /GSPDD/ /AMS ID/	OK	OK
B.3.9. Does the PDD contain a *verifiable* description of the identified baseline scenario, including a description of the technology that would be employed and/or the activities that would take place in the absence of the proposed CDM project activity.	*Description:* N/A *Justification of evidences:* *Conclusion:*	/CDMPDD/ /GSPDD/ /AMS ID/	OK	OK
B.4. Additionality Screen *The assessment of additionality will be validated with focus on whether the project itself is not a likely baseline scenario.*				
B.4.1. Public Announcement Check				
B.4.1.1. Has the project, in its current design, previously been publicly announced to go	*Description:*	/GSPDD/	OK	OK

Checklist Item (incl. guidance for the validation team)	**Validation Team Comments** (justification and substantiation of information, data and evidences)	**Ref.**	**Draft Concl.**	**Final Concl.**
ahead without carbon revenues, prior to any payment being need for the implementation of the project? Is a statement included in the GS PDD?	This project is already registered with CDM EB. This section does not apply for the proposed GS project labelling *Justification of evidences:* N/A *Conclusion:* N/A	/CDMPDD/		
B.4.1.2. If the project is a Micro Scale project, is a written statement included, that the project has not been announced for implementation without seeking carbon finance during the last 3 years?	*Description:* N/A as this is a small-scale project activity *Justification of evidences:* *Conclusion:*	/CDMPDD/ /GSPDD/	OK	OK
B.4.2. Methodology Additionality Requirements				
B.4.2.1. Does the PDD describe how the project is additional and does the additionality justification follow the requirements of the applied methodology and/or methodological tools?	*Description:* Project additionality has been validated under CDM, following guidance of the applied methodology (simplified procedure to demonstrate additionality) *Justification of evidences:* The PDD and applied methodology have been checked *Conclusion:* Additionality is correctly demonstrated and validated under the CDM	/CDMPDD/ /GSPDD/	OK	OK
B.4.3. Consideration of CDM before project start				

Checklist Item (incl. guidance for the validation team)	**Validation Team Comments** (justification and substantiation of information, data and evidences)	**Ref.**	**Draft Concl.**	**Final Concl.**
B.4.3.1. Is the project starting date reported in accordance with the CDM glossary of terms?.	*Description:* N/A *Justification of evidences:* *Conclusion:*	/CDMPDD/ /GSPDD/	OK	OK
In case the project start date is before commencing of validation, was the incentive from carbon revenues seriously considered and are details given in the PDD? 115) .	*Description:* N/A *Justification of evidences:* *Conclusion:*	/CDMPDD/ /GSPDD/	OK	OK
B.4.3.2. How and when was the decision to proceed with the project taken?	*Description:* N/A *Justification of evidences:* *Conclusion:*	/CDMPDD/ /GSPDD/	OK	OK
B.4.3.3. Is the project start date consistent with the available evidences?	*Description:* N/A *Justification of evidences:* *Conclusion:*	/CDMPDD/ /GSPDD/	OK	OK
B.4.3.4. Was the decision to proceed with the project taken by a person which has the authority to do so?	*Description:* N/A *Justification of evidences:*	/CDMPDD/ /GSPDD/	OK	OK

Checklist Item (incl. guidance for the validation team)		**Validation Team Comments** (justification and substantiation of information, data and evidences)	**Ref.**	**Draft Concl.**	**Final Concl.**
		Conclusion:			
B.4.3.5.	How was the carbon finance involved in the decision making process?	*Description:* N/A *Justification of evidences:* *Conclusion:*	/CDMPDD/ /GSPDD/	OK	OK
B.4.3.6.	Do the evidences provided doubtlessly prove that continuous and real actions were taken in order to secure the CDM/GS status?	*Description:* See related CDM PDD.	/CDMPDD/ /GSPDD/	OK	OK
B.4.3.7.	Is the gap of documented evidences to secure the CDM status less than 3 years and are the evidences relevant for substantiating the action taken, credible, reliable and complete?	*Description:* N/A *Justification of evidences:* *Conclusion:*	/CDMPDD/ /GSPDD/	OK	OK
B.4.3.8.	Did implementation of the project ceased after its commencement and did implementation recommence after consideration of the CDM?	*Description:* N/A *Justification of evidences:* *Conclusion:*	/CDMPDD/ /GSPDD/	OK	OK
B.4.3.9.	Can the CDM involvement in the decision assessed as serious?	*Description:* N/A	/CDMPDD/	OK	OK

Checklist Item (incl. guidance for the validation team)	**Validation Team Comments** (justification and substantiation of information, data and evidences)	**Ref.**	**Draft Concl.**	**Final Concl.**
	Justification of evidences: *Conclusion:*	/GSPDD/		
B.4.4. Identification of alternatives Step 1 (in case of SSC projects pl. skip steps 1 and 2 if appropriate)				
B.4.4.1. Does the list of alternatives contain the status-quo situation, the project not undertaken as a CDM project as well as all other viable means of supplying the outputs or sevices that are to be supplied by the proposed CDM project activity?	*Description:* N/A *Justification of evidences:* *Conclusion:*	/CDMPDD/ /GSPDD/	OK	OK
B.4.4.2. Have all realistic alternatives been identified to the project?	*Description:* N/A *Justification of evidences:* *Conclusion:*	/CDMPDD/ /GSPDD/	OK	OK
B.4.4.3. Do all identified alternatives comply with enforced legislations?	*Description:* N/A *Justification of evidences:* *Conclusion:*	/CDMPDD/ /GSPDD/	OK	OK
B.4.5. Investment analysis Step 2 *In case the investment analysis as per step 2 is chosen to justify the additionality Annex 2*				

Checklist Item (incl. guidance for the validation team)		**Validation Team Comments** (justification and substantiation of information, data and evidences)	**Ref.**	**Draft Concl.**	**Final Concl.**
"Assessment of Financial Parameters" has to be used to provide additonal details of the the calculation parameters..					
B.4.5.1.	Does the PDD provide evidence that the project would not be the most economically or financially attractive alternative or economically / financially feasable without the revenues from the sale of VERs?	*Description:* Not applicable *Justification of evidences:* *Conclusion:*	/CDMPDD/ /GSPDD/	OK	OK
B.4.5.2.	Is an appropriate analysis method chosen for the project (simple cost analysis, investment comparison analysis or benchmark analysis)?	*Description:* Not applicable *Justification of evidences:* *Conclusion:*	/CDMPDD/ /GSPDD/	OK	OK
B.4.5.3.	Is a clear, viewable and unprotected Excel spreadsheet available for the investment calculation?	*Description:* Not applicable *Justification of evidences:* *Conclusion:*	/CDMPDD/ /GSPDD/	OK	OK
B.4.5.4.	Does the period chosen for the investment analysis reflect the technical lifetime of the project activity or in case a shorter period is chosen, is the fair value of the project activity's assets at the end of the investment analysis period (as a cash inflow) included?	*Description:* Not applicable *Justification of evidences:* *Conclusion:*	/CDMPDD/ /GSPDD/	OK	OK
B.4.5.5.	Is the (remaining) technical lifetime of	*Description:* Not applicable	/CDMPD	OK	OK

Checklist Item (incl. guidance for the validation team)		**Validation Team Comments** (justification and substantiation of information, data and evidences)	**Ref.**	**Draft Concl.**	**Final Concl.**
	existing or project equipment defined in accordance with the guidance of the *Tool to determine the remaining lifetime of equipment*?	*Justification of evidences:* *Conclusion:*	D/ /GSPDD/		
B.4.5.6.	Is the fair value calculated in accordance with local accounting regulations (where available) or international best practice?	*Description:* Not applicable *Justification of evidences:* *Conclusion:*	/CDMPDD/ /GSPDD/	OK	OK
B.4.5.7.	Is the book value as well as the expectation of the potential profit or loss included in the fair value calculation?	*Description:* Not applicable *Justification of evidences:* *Conclusion:*	/CDMPDD/ /GSPDD/	OK	OK
B.4.5.8.	Are depreciation and other non-cash related items added back to net profits for the purpose to calculate the financial indicator?	*Description:* Not applicable *Justification of evidences:* *Conclusion:*	/CDMPDD/ /GSPDD/	OK	OK
B.4.5.9.	Is taxation excluded in the investment analysis or is the benchmark intended for post tax comparisons?	*Description:* Not applicable *Justification of evidences:* *Conclusion:*	/CDMPDD/ /GSPDD/	OK	OK
Were the input values used in the investment analysis valid and applicable at the time of the investment decision?		*Description:* Not applicable *Justification of evidences:* *Conclusion:*	/CDMPDD/ /GSPDD/	OK	OK
B.4.5.10.	Is the plant load factor (PLF) chosen in a	*Description:* Not applicable	/CDMPD	OK	OK

Checklist Item (incl. guidance for the validation team)		Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
	conservative manner, taking into account that the PLF may be different in the framework of demonstrating additionality and calculating the ex-ante ER?	*Justification of evidences:* *Conclusion:*	D/ /GSPDD/		
B.4.5.11.	In case of project IRR: Are the costs of financing expenditures (loan repayments and interests) excluded from the calculation of project IRR?	*Description:* Not applicable *Justification of evidences:* *Conclusion:*	/CDMPDD/ /GSPDD/	OK	OK
B.4.5.12.	In cases where a post-tax benchmark is applied please ensure that actual interest payable is taken into account in the calculation of income tax.	*Description:* Not applicable *Justification of evidences:* *Conclusion:*	/CDMPDD/ /GSPDD/	OK	OK
B.4.5.13.	In case of equity IRR: Is the part of the investment costs, which is financed by equity considered as net cash outflow and is the part financed by debt excluded in net cash outflow?	*Description:* Not applicable *Justification of evidences:* *Conclusion:*	/CDMPDD/ /GSPDD/	OK	OK
B.4.5.14.	Is the type of benchmark chosen appropriate for the type of IRR calculated (e.g. local commercial lending rates or weighted average costs of capital for project IRR; required/expected returns on equity for equity IRR)?	*Description:* Not applicable *Justification of evidences:* *Conclusion:*	/CDMPDD/ /GSPDD/	OK	OK
B.4.5.15.	Is the benchmark value suitable for the project activity and is it reasonable to	*Description:* Not applicable	/CDMPDD/	OK	OK

Checklist Item (incl. guidance for the validation team)		Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
	assume that no investment would be made at a rate of a lower return than the benchmark?	*Justification of evidences:* *Conclusion:*	/GSPDD/		
B.4.5.16.	Is it ensured that the project cannot be developed by other developers than the PP?	*Description:* Not applicable *Justification of evidences:* *Conclusion:*	/CDMPDD/ /GSPDD/	OK	OK
B.4.5.17.	Was the benchmark consistently used in the past for similar projects with similar risks?	*Description:* Not applicable *Justification of evidences:* *Conclusion:*	/CDMPDD/ /GSPDD/	OK	OK
B.4.5.18.	Does the PDD and related spreadsheets contain a sensitivity analyis and does the same contain variation of parameters which may vary throughout the project lifetime.	*Description:* Not applicable *Justification of evidences:* *Conclusion:*	/CDMPDD/ /GSPDD/	OK	OK
B.4.5.19.	Were only variables that constitute more than 20% of either total project costs or total project revenues subjected to reasonable variation?	*Description:* Not applicable *Justification of evidences:* *Conclusion:*	/CDMPDD/ /GSPDD/	OK	OK
B.4.5.20.	Have parameters, constituting less than 20% of total project costs or revenues, been identified with potential material impact on the financial parameter?	*Description:* Not applicable *Justification of evidences:* *Conclusion:*	/CDMPDD/ /GSPDD/	OK	OK

Checklist Item (incl. guidance for the validation team)	**Validation Team Comments** (justification and substantiation of information, data and evidences)	**Ref.**	**Draft Concl.**	**Final Concl.**
B.4.5.21. Is the range of variation reasonable in the specific context of the project activity, taking into consideration historic trends in the business sector?	*Description:* Not applicable *Justification of evidences:* *Conclusion:*	/CDMPDD/ /GSPDD/	OK	OK
B.4.6. **Barrier analysis Step 3 or SSC additionality assessment**				
B.4.6.1. Are there any barriers given which have a clear and direct impact on the financial returns of the project?	*Description:* Not applicable *Justification of evidences:* *Conclusion:*	/CDMPDD/ /GSPDD/	OK	OK
B.4.6.2. Are the barriers described risk related (e.g technology failure, other performance related risks)?	*Description:* Not applicable *Justification of evidences:* *Conclusion:*	/CDMPDD/ /GSPDD/	OK	OK
B.4.6.3. Has the unavailabilty of means of finance for the proejct been described and adequately substantiated? Do evidences doubtlessly prove that the financing of the project was assured only due to the benefit of the CDM?	*Description:* Not applicable *Justification of evidences:* *Conclusion:*	/CDMPDD/ /GSPDD/	OK	OK
B.4.6.4. How is it justified and evidenced that the barriers given in the PDD are real?	*Description:* Not applicable *Justification of evidences:* *Conclusion:*	/CDMPDD/ /GSPDD/	OK	OK
B.4.6.5. How is it justified that one or a set of real	*Description:* Not applicable	/CDMPD	OK	OK

Checklist Item (incl. guidance for the validation team)		Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
	barriers prevent(s) the implementation of the project activity and do not prevent the implementation of at least one of the alternatives?	*Justification of evidences:* *Conclusion:*	D/ /GSPDD/		
B.4.6.6.	Does the review of relevant background information on the nature of the company(ies) and entitiy(ies) involved in the financing and implementation of the project sufficiently justify that the barriers related to the lack of access to capital, technologies and skilled labour are real?	*Description:* Not applicable *Justification of evidences:* *Conclusion:*	/CDMPDD/ /GSPDD/	OK	OK
B.4.6.7.	Has it been demonstrated in an objective way how the CDM alleviates each of the identified barriers to a level that the project is not prevented anymore from occurring by any of the barriers?	*Description:* Not applicable *Justification of evidences:* *Conclusion:*	/CDMPDD/ /GSPDD/	OK	OK
B.4.6.8. .	Would provision of additional financial means lead to the mitigation of the barrier(s) demonstrated?	*Description:* Not applicable *Justification of evidences:* *Conclusion:*	/CDMPDD/ /GSPDD/	OK	OK
B.4.7. Common practice analysis Step 4 (in case of SSC projects skip this step)					
B.4.7.1.	Is the defined region for the common practice analysis appropriate for the	*Description:* Not applicable *Justification of evidences:*	/CDMPDD/	OK	OK

Checklist Item (incl. guidance for the validation team)	**Validation Team Comments** (justification and substantiation of information, data and evidences)	**Ref.**	**Draft Concl.**	**Final Concl.**
technology/industry type?	*Conclusion:*	/GSPDD/		
B.4.7.2. To what extent similar projects have been undertaken in the relevant region?	*Description:* Not applicable *Justification of evidences:* *Conclusion:*	/CDMPDD/ /GSPDD/	OK	OK
B.4.7.3. In case similar projects are identified, are there any key differences between the proposed project and existing or ongoing projects and what kind of differences are observed?	*Description:* Not applicable *Justification of evidences:* *Conclusion:*	/CDMPDD/ /GSPDD/	OK	OK
B.4.8. ODA Additionality Check				
B.4.8.1. Is a clear and transparent financing plan submitted which allows an assessment of whether the project financing includes ODA?	*Description:* The project does not involve public funding hence this is not applicable *Justification of evidences:* The CDMPDD and GS PDD have been checked. Interviews with the Project proponent have been contacted *Conclusion:* Project does not involve any public funding	/CDMPDD/ /GSPDD/ /ODA/	~~CAR1~~	OK
B.4.8.2. Is ODA used for the project activity and if yes is the funding on condition that the credits coming out of the project are transferred to	*Description:* Project does not involve any public funding hence not applicable	/CDMPDD/ /GSPDD/	OK	OK

Checklist Item (incl. guidance for the validation team)	**Validation Team Comments** (justification and substantiation of information, data and evidences)	**Ref.**	**Draft Concl.**	**Final Concl.**
the donor country?	*Justification of evidences:* The CDMPDD and GS PDD have been checked. Interviews with the Project proponent have been contacted *Conclusion:* No ODA is used	/ODA/		
B.4.8.3. Is a duly filled ODA declaration submitted for validation? And is it signed by an authorized person?	*Description:* A completed and signed ODA declaration was furnished to both the GS and the DOE *Justification of evidences:* ODA declaration was checked *Conclusion:* The ODA was however not included in the draft GS PDD and CL01 was raised	/CDMPDD/ /GSPDD/ /ODA/	~~CL01~~	OK
B.4.9. Assessment of double counting				
B.4.9.1. Does the project area overlap with the project area of a similar project activity which claims for ER-certificates?	*Description:* There are no project in the area similar to this project activity, moreover the same was already checked and validated at the time of CDM registration. *Justification of evidences:* As per site visit observations. *Conclusion:* The project does not overlap with any other project	CDMPDD/ /GSPDD/	OK	OK

Checklist Item (incl. guidance for the validation team)	**Validation Team Comments** (justification and substantiation of information, data and evidences)	**Ref.**	**Draft Concl.**	**Final Concl.**
B.4.9.2. Is it reliably confirmed, e.g. by providing an undertaking, that the VERs within this proposed project activity are not part of another voluntary emission reduction project activity. Has a declaration of non-involvement in other certification schemes been provided by the PP? (Confirmation of avoidance of double counting).	*Description:* PP has confirmed in the GS PDD that the project is not part of other schemes and will not claim Green or White Certificates, or equivalent. *Justification of evidences: pending* The GS PDD has been checked *Conclusion:* The project is undergoing both CDM and GS validation	CDMPDD/ /GSPDD/ / /vcs/ /gs/ /unfccc/	OK	OK
B.5. Ex-Ante Calculation of GHG Emission Reductions *It is assessed whether the ex-ante calculations of project emissions, baseline emissions, leakage emissions are stated according to the methodology and whether the argumentation for the choice of default factors and values – where applicable – is justified. Furthermore calculation of emission reductions shall be assessed.*				
B.5.1. Are the equations applied correctly according to the applied approved CDM/GS methodology?	☒ The equations applied for calculation are correctly applied according to the approved methodology. ☐ The following mistakes have been identified in this context: *Description:* The project is registered under CDM and has applied methodology	/PDD/ /AMS-ID/	OK	OK

Checklist Item (incl. guidance for the validation team)	**Validation Team Comments** (justification and substantiation of information, data and evidences)	**Ref.**	**Draft Concl.**	**Final Concl.**
	AMS-I.D. Version 13 “Grid connected renewable electricity generation and later on decided to apply for retroactive GS labelling. The application and justification of all methodological choices have been validated under the CDM PDD and validation report clearly assessed the same, However to be eligible under GS PP has also demonstrated the applicability of version 18 *Justification of evidences:* GSPDD and methodology is checked *Conclusion:* The equations applied are according to the approved CDM methodology AMS-I.D. Version 18 “Grid connected renewable electricity generation			
B.5.2. In case the methodology allows for different methodological choices, are the equations applied properly justified and have they been used reflecting the other methodological choices (i.e. baseline identification)?	*Description:* As per registered CDM PDD *Justification of evidences:* NA. *Conclusion:* N/A	/AMS-I D/ /CDM PDD/ /GS PDD/	OK	OK
B.5.3. Have conservative assumptions been used when calculating the baseline and project emissions?	*Description:* The application and justification of all methodological choices and all assumptions have been validated under the CDM *Justification of evidences:* The PDD and project validation report have been checked	/CDM PDD/ /GSPDD/ /VAL/	OK	OK

Checklist Item (incl. guidance for the validation team)	**Validation Team Comments** (justification and substantiation of information, data and evidences)	**Ref.**	**Draft Concl.**	**Final Concl.**
	Conclusion: Methodological choices have been correctly applied and justified			
B.5.4. Does the implementation of the project activity lead to GHG emissions within the project boundary which are expected to contribute more than 1% of the overall expected average annual emission reductions, which are not addressed by the methodology?	*Description:* As per methodology and PDD, no project emissions are expected *Justification of evidences:* The PDD and methodology have been checked *Conclusion:* No project emissions are expected	/CDM PDD/ /GSPDD/ /VAL/	OK	OK
B.5.4.1. Has a plant load factor (PLF) been defined ex-ante and considered for determination of baseline emissions?	The PLF is as per the registered CDM PDD	/CDM PDD/ /GSPDD/ /VAL/	OK	OK
B.5.5. Are all data sources and assumptions appropriate and parameters which remain fixed throughout the crediting period correct, applicable to the project and will lead to a conservative estimation of emission reductions?	*Description:* All data sources and assumptions have been validated under the CDM *Justification of evidences:* The PDD and project validation report have been checked *Conclusion:* Methodological choices, assumptions and justifications have been correctly applied	/CDM PDD/ /GSPDD/ /VAL/	OK	OK

Checklist Item (incl. guidance for the validation team)	**Validation Team Comments** (justification and substantiation of information, data and evidences)	**Ref.**	**Draft Concl.**	**Final Concl.**
B.5.6. Are all ex-ante calculation values for monitoring parameters (as defined as per chapter B.7.1) reasonable?	☒ All "Values of data to be applied for the purpose of calculating expected emissions reductions" are considered to be reasonable, applicable and conservative. ☐ The following mistakes have been identified in this context:	/ER/ /AMS ID/	OK	OK
B.5.7. Are the emission reductions real, measurable and give long-term benefits related to the mitigation of climate change.	*Description:* The emission reductions are real, measurable and give long-term benefits related to the mitigation of climate change. *Justification of evidences:* The methodology has been followed *Conclusion:* All steps have been taken to ensure that The emission reductions real and measurable.	/CDMPDD/ /GSPDD/ /AMS-I D/ /ER/	OK	OK
B.6. Monitoring of Emission Reductions *It is assessed whether the monitoring plan is appropriate for the project activity and in line with the applied methodology.*				
B.6.1. Are all carbon monitoring parameters required by the applied methodology contained in the monitoring plan?	*Description:* Validated during CDM registration *Justification of evidences:* *Conclusion:*	/PDD/ /TL/	OK	OK
B.6.2. Are the means of monitoring of all parameters	*Description:* Validated during CDM registration	/PDD/	OK	OK

Checklist Item (incl. guidance for the validation team)	Validation Team Comments (justification and substantiation of information, data and evidences)	Ref.	Draft Concl.	Final Concl.
contained in the monitoring plan feasible and in accordance with the requirements of the applied methodology?	*Justification of evidences:* *Conclusion:*	/unfccc/ /AMS-I D/		
B.6.3. Have all means of implementing the monitoring plan, e.g. equations necessary for ex-post emission reduction calculation, been described clearly and in line with the methodology?	*Description:* Validated during CDM registration *Justification of evidences:* *Conclusion:*	/PDD/ /unfccc/ /AMS-I D/	OK	OK
B.6.4. Is it likely that the monitoring arrangements described in the PDD can properly be implemented in the context of the project activity?	*Description:* Validated during CDM registration *Justification of evidences:* *Conclusion:*	/PDD/ /unfccc/ /AMS-I D//	OK	OK
B.6.5. Are the QA/QC procedures appropriate sufficient to ensure the emission reductions achieved from the project activit can be reported ex-post and verified?	*Description:* Validated during CDM registration *Justification of evidences:* *Conclusion:*	/PDD/ /VAL/	OK	OK
B.6.6. Are procedures identified for data management?	*Description:* Validated during CDM registration *Justification of evidences:*	/PDD/ /VAL/	OK	OK

Checklist Item (incl. guidance for the validation team)	**Validation Team Comments** (justification and substantiation of information, data and evidences)	**Ref.**	**Draft Concl.**	**Final Concl.**
	Conclusion:			
B.2.7. Are all SDG indicators required by the applied methodology contained in the monitoring plan?	*Description:* The CDM methodology applied does not require specific SDG parameters *Justification of evidences:* The methodology was checked *Conclusion:* No SD parameters are not specified in the applied GHG methodology	/GSPDD/ /AMS-I.D/	OK	OK
C. Duration of the Project *It is assessed whether the temporary boundaries of the project are clearly defined.*				
C.1. Is the project's starting date clearly defined and evidenced?	*Description:* This is a CDM registered project so this section is not applicable. *Justification of evidences:* *Conclusion:*	/GSPDD/ /CDMPDD/	OK	OK
C.2. Is the project's operational lifetime clearly defined and evidenced?	*Description:* This is a CDM registered project so this section is not applicable. *Justification of evidences:* *Conclusion:*	/GSPDD/ /CDMPDD/	OK	OK
C.3. Is the start of the crediting period clearly	*Description:* This is a CDM registered project so this section is not	/GSPDD/	OK	OK

Checklist Item (incl. guidance for the validation team)	**Validation Team Comments** (justification and substantiation of information, data and evidences)	**Ref.**	**Draft Concl.**	**Final Concl.**
defined and reasonable?	applicable. *Justification of evidences:* *Conclusion:*	/CDMPDD/		
D. Contribution to Sustainable Development *The project's contribution to sustainable development is assessed.*				
D.1. Will the project create other environmental or social benefits than GHG emission reductions?	*Description:* The GS PDD outlines the other benefits aside from GHG emission reductions *Justification of evidences:* The GS PDD were checked. Interviews were conducted onsite with the PP and local stakeholders *Conclusion:* Yes project creates other benefits other than GHGs emission reductions. However, during course of validation CAR 2 is raised.	/GSPDD/ /CDMPDD/ /IM/	~~CAR 2~~	OK
E. Environmental & Social Impact Assessment (ESIA) *Documentation on the analysis of the environmental impacts will be assessed, and if deemed significant, an EIA should be provided to the DOE.*				
D.1.1. Are there any Host Party requirements for an	*Description:* This is a CDM registered project and it is assessed during the time of registration. Please refer to the CDM registered final CDM	/GSPDD/	OK	OK

Checklist Item (incl. guidance for the validation team)	**Validation Team Comments** (justification and substantiation of information, data and evidences)	**Ref.**	**Draft Concl.**	**Final Concl.**
Environmental Impact Assessment (EIA)?	validation report and also this is a run of river 6.5 MW hydro power project and as per CEA requirements a comprehensive EIA is not required and an Environment examination report is required for CEA Approval The project capacity is 6.5 MW and it is run of river project with a provision for minimum discharge of 20 l/s as per EER (Environmental Examination report).. Thus the water is discharged to the river again from the power house thus there exists no competition for the use of the water between the diversion channel and the power house discharge point and this will not have any impact on the ground water levels as such no ground water is extracted. The diversion weir at the tail race of the another power plant and no dam is constructed and will not affect the soil erosion in the downstream and the sediment deposits due to the implementation of this project activity is negligible. *Justification of evidences:* GS PDD, CDM registered PDD and EER are checked *Conclusion:* Thus all the six impacts are not applicable to this project. Since this small hydro project The Ceylon Electricity board does not mandate a comprehensive Environmental Impact Assessment rather an Environmental examination report will suffice for the grant of approvals.	/CDMPDD/ /EER/		
D.1.2. In case an Environmental Impact Assessment (EIA) is requested by the host party, has it been carried out and if applicable duly approved?	*Description:* This is a CDM registered project and refer D.1.1 above. *Justification of evidences:* *Conclusion:*	/GSPDD/ /CDMPDD/	OK	OK

Checklist Item (incl. guidance for the validation team)	**Validation Team Comments** (justification and substantiation of information, data and evidences)	**Ref.**	**Draft Concl.**	**Final Concl.**
.				
D.1.3. Has an analysis of the environmental and social impacts of the project activity been sufficiently described and in line with the host party environmental legislation?	*Description:* This is a CDM registered project and refer D.1.1 above. *Justification of evidences:* *Conclusion:*	/GSPDD/ /CDMPDD/	OK	OK
D.1.4. Are transboundary environmental impacts considered in the analysis?	*Description:* This is a CDM registered project and refer D.1.1 above *Justification of evidences:* *Conclusion:*	/GSPDD/ /CDMPDD/	OK	OK
D.1.5. If no EIA has been carried out, could it be assessed whether • Environmental impacts of the project are included in the PDD? • Any SDG indicator / safeguarding principles is scored "-"? • All potential negative impacts have been neutralized by mitigation measures • Stakeholders identified any significant social or environmental impacts?	*Description:* This is a CDM registered project and it is assessed during the time of CDM registration. Please refer to the CDM registered final validation report and also this is a run of river 6.5 MW hydro power project and as per CEB requirements a comprehensive EIA is not required and a Environment examination report is required for CEA Approval. The Project is not having negative environmental impacts.. *Justification of evidences:* Gold Standard PDD has been checked against all the GS requirements and also during the interview with the PP and local stakeholders during the onsite visit. *Conclusion:* No negative impacts are expected	/GSPDD/ /CDMPDD/	OK	OK
F. Stakeholder Consultation Process				

Checklist Item (incl. guidance for the validation team)	**Validation Team Comments** (justification and substantiation of information, data and evidences)	**Ref.**	**Draft Concl.**	**Final Concl.**
The DOE should ensure that stakeholder comments have been invited with appropriate media and that due account has been taken of any comments received.				
F.1. Does the project activity result in a transfer of knowledge or an innovation of technology in the host country of project implementation and are the benefits of the transfer substantiated?	*Description:* The turbine generator is imported from Spain to the host country *Justification of evidences:* The GS PDD and CDM PDD along with CDM validation report are checked *Conclusion:* Technological transfer and knowledge is expected	/GSPDD/ /LSCR/ /CDMPDD/ /VAL/	OK	OK
F.2. Does the project activity clearly demonstrate benefits in terms of SDG, based on • Local / global environment sustainability • Social sustainability and development • Economic and technological development?	*Description:* Section B.6.2 of the GS PDD contains an assessment of SD Goals outcome to ensure environmental and social integrity *Justification of evidences:* The PDD and GS PDD have been checked *Conclusion:* The proposed project activity has demonstrated how it contributes to sustainable development.	/CDMPDD/ /GSPDD/ /unfccc/ /LSCR/	OK	OK

Checklist Item (incl. guidance for the validation team)	**Validation Team Comments** (justification and substantiation of information, data and evidences)	**Ref.**	**Draft Concl.**	**Final Concl.**
F.3. In the event of adverse impacts on the environment, the social / economic situation or technological development in the project region are appropriate mitigation measures implemented?	*Description:* No adverse impacts are expected. Please see checklist item D.1.1 above *Justification of evidences:* *Conclusion:*	/CDMPDD/ /GSPDD/	OK	OK
F.4. Are the chosen mitigation measures able to offset the adverse effects or is the impact deemed negligible?	*Description:* No adverse impacts are expected. Please see checklist item D.1.1 above *Justification of evidences:* *Conclusion:*	/CDMPDD/ /GSPDD/	OK	OK
F.5. Is the scoring linked to the SDGs of the host country, transparent and verifiable and can be monitored?	*Description:* Scoring is linked to a relevant SDG goals for each indicator and the monitoring plan for each parameter is given. *Justification of evidences:* The GS PDD was reviewed *Conclusion:* Section B.7.2 of the GS PDD is duly completed as per GS requirements	/CDMPDD/ /GSPDD/	OK	OK
F.6. In case of Wind, Biomass and Hydro project, is the SD checklist completed?	*Description:* Not applicable *Justification of evidences:* *Conclusion:*	/MDG/ /PDD/ /GSP/	OK	OK

Checklist Item (incl. guidance for the validation team)	**Validation Team Comments** (justification and substantiation of information, data and evidences)	**Ref.**	**Draft Concl.**	**Final Concl.**
F.7. Are all SD indicators discussed during stakeholder consultation? Check that all non-neutral indicators are part of the monitoring plan	*Description:* As per the LSC report submitted to DOE, all relevant SD indicators discussed during stakeholder consultation. *Justification of evidences:* The LSC report and GS PDD have been reviewed *Conclusion:* All SD indicators were discussed	/GSPDD/ /LSCR/	OK	OK
F.8. In case of potential negative impacts or risk of violating the GS Safeguarding Principles by the project, are the identified points (including mitigation/compensation) included in the monitoring plan?	*Description:* No negative impacts are expected.. All the safe guarding principles for renewable hydro project is considered and no negative impacts is foreseen, hence, no need for mitigation or compensation measures *Justification of evidences:* The GS PDD was checked *Conclusion:* No need for mitigation or compensation measures	/GSPDD/	OK	OK
F.9. If a full EIA has been carried out, is the documentation submitted to the validator and are all GS criteria fulfilled?	*Description:* N/A, as this is registered CDM project and all EIA related requirements were met at CDM validation stage. *Justification of evidences:* N/A *Conclusion:*	/unfccc/ /CDMPDD/ /GSPDD/	OK	OK

Checklist Item (incl. guidance for the validation team)	**Validation Team Comments** (justification and substantiation of information, data and evidences)	**Ref.**	**Draft Concl.**	**Final Concl.**
F.10. Can the stakeholder consultation process be assessed as adequate?	*Description:* The PP has conducted the local stakeholder consultation following the CDM requirements as well as the stakeholder Feedback Round as per GS rules. Efforts were made to identify and invite all relevant stakeholders to the LSC and to comment during the SFR. All comments were taken into account *Justification of evidences:* The LSC report and CDM PDD/GS PDD were checked and found appropriate *Conclusion:* CAR 2	/PDD/ /LSCR/ /GSP/	~~CAR2~~	OK

ANNEX 2: ASSESSMENT OF BASELINE IDENTIFICATION

Table A-2: Assessment of Baseline Identification (VVS)

☒	Baseline is pre-defined by the methodology
☐	Assessment of baseline alternatives see below

Baseline Alternatives identified	In line with the Methodology?	Eliminated	Reasons for elimination / non-elimination from list of alternatives	Evidence used	DOE Assessment	
					Appropriateness of elimination	Assessment of validation team (results and means of assessment)

ANNEX 3: ASSESSMENT OF FINANCIAL PARAMETERS

Table A-3: Assessment of Financial Parameters (VVS and PS)

☐	No financial parameters are used for additionality justification					
☒	Assessment of all financial parameters – please refer registered CDM project 3531					
Parameter	**Value applied**	**Unit**	**Source of Information (please indicate document and page)**	**Reference**	**DOE ASSESSMENT**	
					Correctness of value applied	**Comment**
				/ /	☐	
				/ /	☐	
				/ /	☐	

ANNEX 4: ASSESSMENT OF BARRIER ANALYSIS

Table A-4: Assessment of Barrier Analysis (VVS)

☒	No barrier parameters are used for additionality justification			
☐	Assessment of barriers see below			
Kind of Barrier (invest, tech, other)	**Description of Barrier**	**Evidence used**	**Assessment of validation team**	
			Appropriateness of information source	**Explanation of final result**
			☐	
			☐	

ANNEX 5: OUTCOME OF THE GSCP

Table A-5: Outcome of the Global Stakeholder Consultation Process (VVS)

☒	No comments were received during the global stakeholder consultation period					
☐	Comments were received during the global stakeholder consultation period. The comments (in unedited form) and the consideration/response of the validation team are presented below:					
Comment No.:	**Comment by:**	**Inserted on:**	**Subject**	**Comment *)**	**Action taken by the validation team to take due account on the comment *)**	**Conclusion (incl. CARs CLs or FARs)**
-	-	-	-	-	-	-

*) In case clarifications have been requested by the validation team corresponding rows shall be added

ANNEX 7: STATEMENTS OF COMPETENCE OF INVOLVED PERSONNEL

TÜV NORD Certification

Statement of Competence

Appointment and authorization according to the procedures
of the TÜV NORD JI/CDM Certification Program

Mr. Stefan Winter

SCHEME	STATUS	VALID UNTIL
CDM	Senior Assessor (Validation, Verification) Technical Reviewer	2020-07-27
VCS	Senior Assessor (Validation, Verification) Technical Reviewer	2020-07-27

Authorization status for technical areas within sectoral scopes:

CODE	TECHNICAL AREA
1.1	Thermal energy generation
1.2	Renewables
2.1	Energy distribution
3.1	Energy demand
4.1	Cement and lime production
4.2	Paper
5.2	Caprolactam, nitric and adipic acid
9.1	Aluminium and magnesium production
9.2	Iron, steel and Ferro-alloy production
13.1	Solid waste and wastewater
13.2	Manure

163 – Rev. 5, Date: 2017-07-20

TÜV NORD Certification

Statement of Competence

Appointment and authorization according to the procedures
of the TÜV NORD JI/CDM Certification Program

Mr. Prakash Kumar Mishra

SCHEME	STATUS	VALID UNTIL
CDM	Senior Assessor (Validation, Verification) Technical Reviewer	2018-05-17
VCS / ISO 14064-2	Senior Assessor Technical Reviewer	2018-05-17

Authorization status for technical areas within sectoral scopes:

CODE	TECHNICAL AREA
1.2	Renewables
3.1	Energy demand

146 - Rev. 5.1, Date: 2018-01-03

146_S01-VA060-F20_2017-10-18_rev6.doc S01-VA060-F20 rev3 / 2012-10-25

Statement of Competence

Appointment and authorization according to the procedures of the TÜV NORD JI/CDM Certification Program

Mr. David Lubanga

SCHEME	STATUS	VALID UNTIL
CDM	Lead Assessor (Validation, Verification)	2018-10-20
VCS / ISO 14064-2	Lead Assessor	2018-10-20

Authorization status for technical areas within sectoral scopes:

CODE	TECHNICAL AREA
1.2	Renewables
3.1	Energy demand

251 - Rev. 4, Date: 2015-10-21

Statement of Competence

Appointment and authorization according to the procedures of the TÜV NORD JI/CDM Certification Program

Mr. Ezhilarasu G.

SCHEME	STATUS	VALID UNTIL
CDM	Senior Assessor (Validation, Verification)	2020-02-06
VCS / ISO 14064-2	Senior Assessor	2020-02-06

Authorization status for technical areas within sectoral scopes:

CODE	TECHNICAL AREA
1.2	Renewables
3.1	Energy demand
13.1	Solid waste and wastewater
13.2	Manure

130 – Rev. 5, Date: 2018-01-04