



Monitoring report form
(Version 05.1)

MONITORING REPORT

Title of the project activity	7 MW Bundled Hydro power project at Himachal Pradesh of Raajratna Energy Holdings Pvt. Ltd	
UNFCCC reference number of the project activity	9111	
Version number of the monitoring report	01	
Completion date of the monitoring report	22/12/2015	
Monitoring period number and duration of this monitoring period	First monitoring period 01/01/2013 to 31/10/2015 (both days included)	
Project participant(s)	M/s Raajratna Energy Holdings Pvt Ltd	
Host Party	India	
Sectoral scope(s)	01 - Energy Industries (renewable / non-renewable sources)	
Selected methodology(ies)	AMS.I.D "Grid connected renewable electricity generation" version 17	
Selected standardized baseline(s)	NA	
Estimated amount of GHG emission reductions or net GHG removals by sinks for this monitoring period in the registered PDD	55,788 tCO _{2e}	
Total amount of GHG emission reductions or net GHG removals by sinks achieved in this monitoring period	GHG emission reductions or net GHG removals by sinks reported up to 31 December 2012	GHG emission reductions or net GHG removals by sinks reported from 1 January 2013 onwards
	0 tCO _{2e}	64,520 tCO _{2e}

SECTION A. Description of project activity

A.1. Purpose and general description of project activity

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The purpose of the project activity is to generate power using renewable energy source (hydro) and export the same to the Himachal Pradesh state grid. The 5 MW Belij project is a run of the river scheme on Belij Nallah, which is a tributary of river Ravi. The electricity generated is evacuated to the Himachal Pradesh state grid through connective to the nearest substation. The estimated annual gross electricity generation is 24.81 GWh, and the estimated electricity supplied to the grid will be 23.445 GWh annually, after taking auxiliary consumption, transformation losses and transmission losses into account.

The project activity generates 5 MW of electricity using hydro electric technology and is located at Belij, Chamba district, Himachal Pradesh, India (hereafter referred to as Belij Project or Project Activity), being developed by Belij Hydro Power Private Limited. The project initially was planned as two projects, as one 5 MW Belij and 2 MW Gehra, together resulting in a total of 7 MW bundled small hydropower project. The Belij Project was being developed by Belij Hydro Power Private Limited and the Gehra Project was being implemented by Gehra Hydro Power Private Limited. However due to various constraints and technical difficulties in executing the Gehra Project, the Board of Directors of Gehra Hydro Power Private Limited (GHPPL) decided not to implement the Project. Hence, though the project title indicates 7 MW, the actual implemented capacity was only 5 MW and the same is the sole activity under this project. The project title has not been revised as it was approved by the host country DNA.

The project activity exports the power to NEWNE grid of India. In the absence of the current zero emission hydro project, the equivalent amount of electricity would have been generated by power plants in the grid mix and results in GHG emissions. The project activity reduces the same by the way of exporting the green power to the grid, hence, the NEWNE grid forms the baseline for this project activity for determination of emission reductions.

The project activity start date is 23/02/2009 and the same has been commissioned on 17/06/2012. The project activity has been registered under CDM on 24/12/2012 and the start date crediting period is 01/01/2013.

During the monitoring period 01/01/2013 to 31/10/2015 (34 months) the project activity has exported a total of 76814 MWh of electricity and as a result, reduced a total of 64,520 tCO_{2e} GHG emissions into the atmosphere.

A.2. Location of project activity

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Host Party: India

Region/state/province : Himachal Pradesh, Northern region

City/town/community: Chamba District

Physical/geographical location - Hibra Village

The power house of the project can be approached through the Chamba-Bharmour state highway; this is about 32 km from Chamba and 161 km from Pathankot.

Particulars	Geographical Coordinates of Power House	Geographical Coordinates of Wier
Longitude	76° 23' 51" E	76° 20' 0.42" E
Latitude	32° 29' 33" N	32° 32' 15.41" N

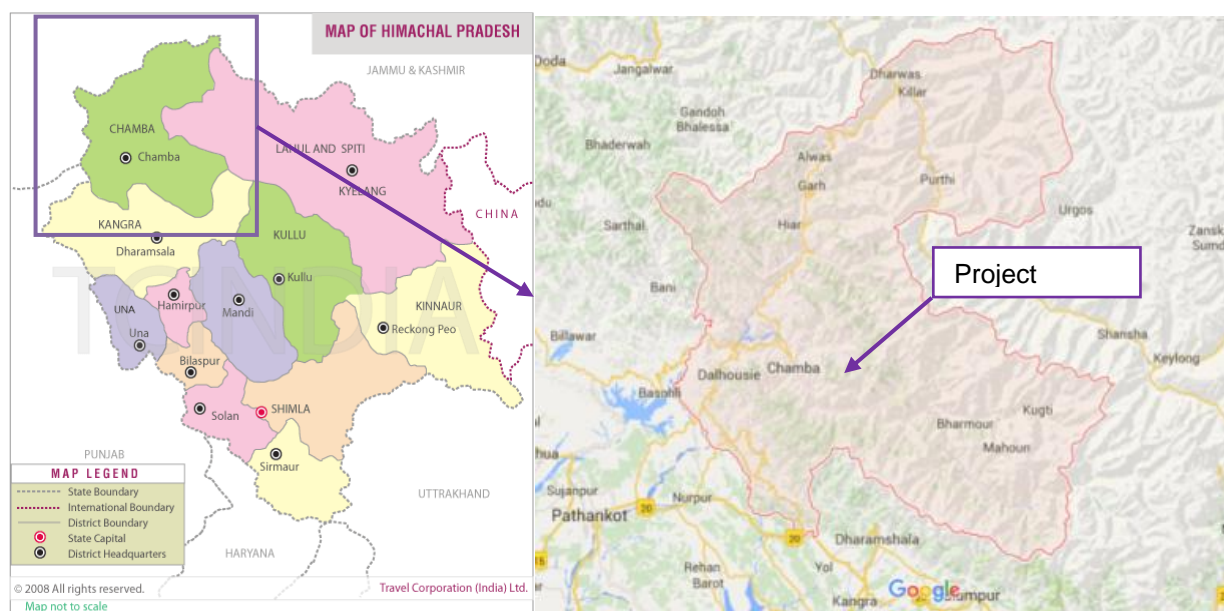


Fig: Map of Himachal Pradesh state, Chamba district and project location

A.3. Parties and project participant(s)

Party involved (host indicates a host Party)	Private and/or public entity(ies) project participants (as applicable)	Indicate whether the Party involved wishes to be considered as project participant (yes/no)
India (host)	Private entity: M/s Raajratna Energy Holdings Pvt Ltd	No.

A.4. Reference of applied methodology and standardized baseline

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Title: AMS.I.D “Grid connected renewable electricity generation”**Reference:** Version 17; Sectoral scope - 01

Tools: "Tool to calculate project or leakage CO2 emissions from fossil fuel combustion" Version 02

A.5. Crediting period of project activity

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The project activity opted for fixed crediting period for 10 years. The start date of the crediting period is 01/01/2013.

The current monitoring period starts from 01/01/2013 to 31/10/2015 (including both days), a total of 34 months (or 1035 days).

A.6. Contact information of responsible persons/entities

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The entity as indicated in the Appendix 1 is the project participant for project for this project activity. The details of the entity responsible for completing the CDM-MR-FORM as below:-

Jimmy Sah
Infinite Solutions
611, Chetak Centre Main,
RNT Marg, Indore, (M.P.)
India - 452002
Email: jimmy@infisolutions.org
Phone: 0731- 4050174
www.infisolutions.org

SECTION B. Implementation of project activity

B.1. Description of implemented registered project activity

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Project activity consists of 5 MW hydro electric project activity, which was successfully commissioned on 17/06/2012. The project is in continuous operation till date. All the physical and technical features of the project are implemented and is in operation as described in the registered PDD.

The project diverts Belij nala inflows by constructing a trench weir. The project activity generates electricity by the diverted water from the weir and channels them through penstock to feed 2 number of pelton turbines connected to generating units of 2.50 MW each in the power house. The project activity equipment technical specifications are provided below:

Technical specifications of Turbine	
Rated Net Head	221.5 m
Rate out put	2618 kW
Runner Bucket PCD	1200mm
Rated Speed	500 RPM
Runaway Speed	871.1RPM
Technical specifications of Generator	
Capacity	2.500 MW
Voltage Output	6600V
Rated Speed	500RPM
Frequency	50Hz
Power Factor	0.85 Lag
Configuration	Horizontal

No events or situations happened during the reported monitoring period which can alter the applicability of the applied methodology.

B.2. Post-registration changes**B.2.1. Temporary deviations from registered monitoring plan, applied methodology or applied standardized baseline**

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There is no request for deviation applied during this monitoring period.

B.2.2. Corrections

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There have not been any corrections to project information or parameters fixed at validation during the current monitoring period.

B.2.3. Changes to start date of crediting period

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There is no change proposed in the start date of crediting period.

B.2.4. Inclusion of a monitoring plan to the registered PDD that was not included at registration

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Not applicable as registered PDD includes monitoring plan.

B.2.5. Permanent changes from registered monitoring plan, applied methodology or applied standardized baseline

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No permanent changes from registered monitoring plan, applied methodology or applied standardized baseline are proposed or applicable.

B.2.6. Changes to project design of registered project activity

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Not applicable

B.2.7. Types of changes specific to afforestation or reforestation project activity

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Not applicable

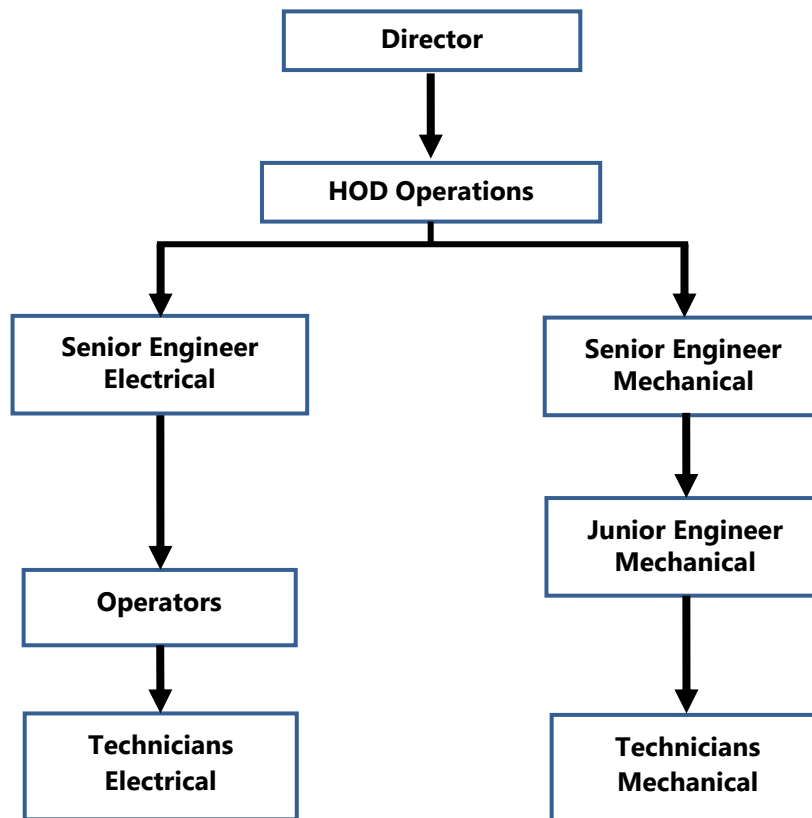
SECTION C. Description of monitoring system

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The monitoring plan is developed in accordance with the modalities and procedures for CDM project activities and is for grid-connected small hydroelectric project implemented in Himachal Pradesh, India. The monitoring plan, which is implemented by the project proponent describes about the monitoring organisation, parameters to be monitored, monitoring procedure, quality assurance, quality control procedures, data storage and archiving.

The authority and responsibility for monitoring, measurement, reporting and reviewing of the data rests with the project proponent. The identified persons are placed as in charge for GHG monitoring activities and necessary reporting to the management. The personnel appointed by the PP at the project site are well qualified and experienced in operation of similar projects and are equipped with required skills and expertise.

PP proposed the following structure for data monitoring, collection, data archiving and calibration of equipment's for this project activity. The team comprises of the following members:-



Roles and Responsibilities

Director:

- Reviews and approves the monthly monitoring reports and sheets
- Decision making authority with regard to plant operations
- Advises and guides HOD operations from time to time with regard to project operations

HOD (Operations)

- Ensuring preparation of the monitoring report and all related excel sheets.
- Ensuring the monitoring procedure for efficient generation and effective maintenance of all related components.
- Checking reports of all the data related to generation and timely maintenance.
- Ensuring that all the safety procedures are followed and maintained properly.
- Ensuring training of engineers and technicians for in the recording of energy meter readings and troubleshooting procedures.

Senior engineer - Electrical

- Checking for correctness of data and readings of energy meters taken from time to time.
- To check the calculations of generation, export/ import, consumption of energy recorded in the log
- Carrying out the replacement / maintenance activities related to energy meters along with HPSEB

Senior engineer - Mechanical

- Issuing all necessary work permits required for maintenance.
- Recording the joint meter readings of all the three power houses connected to the Common Transmission Line along with the HPSEB officials on the 1st of every month.

- Making all necessary correspondences with the HPSEB staff regarding the joint meter reading.

Jr. Engineer- Hydro Mechanical

- Recording all the data related to generation, timely and required maintenance.
- Guiding the technicians and operators in all the related works regarding operation and maintenance.

Operators

- Ensuring the optimal generation of power of the hydro plant.
- Recording and troubleshooting all the faults and tripping that may arise from time to time.
- Coordinating with all the technicians and the supervising officials.

Technicians - Electrical

- Undertaking the readings and energy calculations related to power generation, export, import and auxiliary consumption.
- Involving in any replacement / maintenance activities related to energy meters.

Technicians (Mechanical)

- Undertaking temperature, pressure and flow readings of all the machines and devices installed at the plant to ensure safe and efficient operations.
- Taking part in any replacement or maintenance activities related to the machinery.

PP has appointed an entity for maintenance of the transmission line, whereas, the rest of the power plant operations are taken care by the PP.

Monitoring procedure:

The project electricity export and import monitoring is carried out based on the Energy Meter Reading taken at the Jarangala Sub-station of HPSEB Limited. One Set of Main and Check Meters are provided for each of the two feeders that supply electricity to the substation. The accuracy Class of the Meters and the associated equipments is 0.2s Class as per the requirements.

A common transmission line has been constructed by 3 project developers, the project proponent being one of the developers. From the power house of each project the power is drawn to the common pooling station by separate transmission lines. At the common transmission line separate meters (before pooling point) are installed to measure the amount of power being supplied by each project. From the common pooling station the power will be evacuated through the common transmission line to Jarangala substation, where HPSEB meters are installed. The transmission losses from common pooling station to Jarangala substation will be borne by the 3 project developers in proportion to the energy injected into the common transmission line by each project. In this regard a separate agreement is being entered into by the 3 project developers.

The JMRs of the project activity reflect all the above indicated arrangement and procedure followed to arrive at net energy exported by the project activity and the other two involved projects.

QA/QC procedures:

The energy meters at the feeders are maintained and under the control of HPSEB. Neither the project proponent nor the site personnel have any control over it. The plant records are cross-checked with the records of sold electricity to HPSEB. However, as per the monitoring requirements in the PDD, the energy exported to grid mentioned in the JMR by HPSEB is final. The meters are calibrated at regular intervals by HPSEB as per the PPA requirements. PP has no control over the same.

Data Archiving:

Monthly data is archived electronically and in paper form and stored for the entire crediting period and two years thereafter by the PP.

SECTION D. Data and parameters

D.1. Data and parameters fixed ex ante or at renewal of crediting period

Data/parameter:	$EF_{grid,OM,y}$
Unit	tCO _{2e} /MWh
Description	The Operating Margin emission factor of NEWNE Grid
Source of data	Central Electricity Authority (CEA) Baseline Carbon Dioxide Emission database version 5.0 dated November 2009
Value(s) applied)	1.0049
Choice of data or measurement methods and procedures	The value used is fixed ex-ante as average of the last three years of the Operating margin provided by Central Electricity Authority (CEA) Baseline Carbon Dioxide Emission database version 5.0 dated November 2009
Purpose of data	Calculation of grid emission factor
Additional comments	-

Data/parameter:	$EF_{grid,BM,y}$
Unit	tCO _{2e} /MWh
Description	The Build Margin emission factor of NEWNE grid
Source of data	Central Electricity Authority (CEA) Baseline Carbon Dioxide Emission database 5.0 dated November 2009
Value(s) applied)	0.6751
Choice of data or measurement methods and procedures	The value used is fixed ex-ante as recent most Build margin provided by Central Electricity Authority (CEA) Baseline Carbon Dioxide Emission database version 5.0 dated November 2009
Purpose of data	Calculation of grid emission factor
Additional comments	-

Data/parameter:	$EF_{CO_2,grid,y} = EF_{grid,CM,y}$
Unit	tCO _{2e} /MWh
Description	The grid CO ₂ emission factor in year y
Source of data	Calculated
Value(s) applied)	0.8400
Choice of data or measurement methods and procedures	The value has been calculated as $0.5 * EF_{grid,OM,y} + 0.5 * EF_{grid,BM,y}$ and fixed ex-ante
Purpose of data	Calculation of baseline emissions and emission reductions
Additional comments	-

Data/parameter:	D_{HSD}
Unit	kg/lt
Description	Density of HSD
Source of data	Central Electricity Authority (CEA) CO ₂ database version 5 dated November 2009. (www.cea.nic.in)
Value(s) applied)	0.83

Choice of data or measurement methods and procedures	The data is considered from the available authentic national data source due to absence of the authentic measurement procedures by PP. This is fixed ex-ante for the entire crediting period.
Purpose of data	Calculations of project emissions
Additional comments	-

Data/parameter:	$EF_{CO_2,i,y}$
Unit	kgCO ₂ e/TJ or tCO ₂ e /TJ
Description	Emission Factor of HSD
Source of data	IPCC default values at the upper limit of the uncertainty at a 95% confidence interval as provided in table 1.4 of Chapter1 of Vol. 2 (Energy) of the 2006 IPCC Guidelines on National GHG Inventories
Value(s) applied)	74800 or 74.8
Choice of data or measurement methods and procedures	Table 1.4, Chapter 1, Volume 2, 2006 IPCC Guidelines for National Greenhouse Gas Inventories
Purpose of data	Calculations of project emissions
Additional comments	IPCC Default Value and the same will be updated as per the latest IPCC default value

D.2. Data and parameters monitored

Data/parameter:	EG_{Bly}
Unit	MWh
Description	Quantity of net electricity supplied to the grid as a result of the implementation of the CDM project activity in year y (MWh)
Measured/calculated/default	Measured and calculated
Source of data	Joint Meter Readings and Annexure "A" Calculation of net saleable Energy Based in IPP's Meter reading
Value(s) of monitored parameter	76814
Monitoring equipment	Electronic Tri-vector Meters (T V M)
Measuring/reading/recording frequency:	Continuous measurement, monthly recording and summarized annually

Calculation method (if applicable):	<p>The project electricity export and import monitoring is carried out based on the Energy Meter Reading taken at the Jarangala Sub-station of HPSEB Limited. One Set of Main and Check Meters are provided for each of the two feeders that supply electricity to the substation. The accuracy Class of the Meters and the associated equipments is 0.2s Class as per the requirements.</p> <p>A common transmission line has been constructed by 3 project developers, the project proponent being one of the developers. From the power house of each project the power is drawn to the common pooling station by separate transmission lines. At the common transmission line separate meters (before pooling point) are installed to measure the amount of power being supplied by each project. From the common pooling station the power will be evacuated through the common transmission line to Jarangala sub station, where HPSEB meters are installed. The transmission losses from common pooling station to Jarangala substation will be borne by the 3 project developers in proportion to the energy injected into the common transmission line by each project. In this regard a separate agreement is being entered into by the 3 project developers.</p> <p>The JMRs of the project activity reflect all the above indicated arrangement and procedure followed to arrive at net energy exported by the project activity and the other two involved projects.</p> <p>The Annexure "A" Calculation of net saleable Energy Based in IPP's Meter reading to the JMR also contains the transmission losses which are calculated by HPSEB. The difference between the electricity exported and the electricity imported and the transmission losses gives the "Quantity of net electricity supplied to the grid as a result of the implementation of the CDM project activity" All the calculations are submitted to HPSEB for approval and processing of payment, on monthly basis.</p> <p>The monitoring parameter being 'Quantity of net electricity supplied to the grid', the export values approved by HPSEB, provided under the JMR for billing purpose are considered final, as mentioned in the PDD.</p>
QA/QC procedures:	<p>The energy meters installed at HPSEB substation for both the feeders are calibrated as per the requirements of the PPA. The calibration certificates of the meters are provided.. The data on net electricity exported to the grid can be cross-checked with the invoices raised by the PP to HPSEB, Further, for the billing purpose, readings from the main meter will be considered. However, readings from check meter will be considered only when the main meter is not functioning or error is beyond accuracy limit. Further, all the readings will be taken jointly by HPSEB official and the PP.</p>
Purpose of data:	Calculation of baseline emissions
Additional comments:	-

Data/parameter:	FC _{i,i,y}
Unit	Litre
Description	Quantity of HSD consumed in DG Set in the project activity during the year y
Measured/calculated/default	Measured and calculated
Source of data	Power plant log book/records
Value(s) of monitored parameter	1375
Monitoring equipment	Dip stick
Measuring/reading/recording frequency:	The measurement is carried out during each operation of DG set.
Calculation method (if applicable):	The measurement is done by dip stick after each time usage. The DG set will have a separate fuel tank. The level indicators give the consumption of HSD in lt. After each usage (frequency) the tank is again filled to maximum level.
QA/QC procedures:	The Dip stick will be calibrated once every year.
Purpose of data:	Calculation of project emissions

Additional comments:	
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Data/parameter:	NCV _{i,y}
Unit	kcal/kg
Description	Net calorific value of HSD
Measured/calculated/default	Default
Source of data	Central Electricity Authority (CEA) CO2 database version 10 dated December 2014. (www.cea.nic.in)
Value(s) of monitored parameter	9975
Monitoring equipment	NA
Measuring/reading/recording frequency:	Default value by CEA. The latest available value is considered.
Calculation method (if applicable):	The calorific value as mentioned in the Central Electricity Authority (CEA) CO2 database version 10 dated December 2014 (www.cea.nic.in) is 10,500 kcal/kg and considering the Delta GCV NCV as 5% as mentioned in CEA CO ₂ Baseline Data base Version 10 the NCV comes out to be 9975 kcal/kg. The data is considered from the available authentic national data source due to absence of the authentic measurement procedures by PP. The appropriateness of the values will be checked annually by comparing the same with the latest version of the Central Electricity Authority (CEA) Baseline Carbon Dioxide Emission database published by the host party (India).
QA/QC procedures:	The QA/QC procedures are not under the control of the PP as the data is considered from the available authentic national data source. Further, the latest value as published in the latest version of the Central Electricity Authority (CEA) Baseline Carbon Dioxide Emission database published by the host party (India) available at the time of verification will be used.
Purpose of data:	Calculation of project emissions
Additional comments:	Applicable as option B as specified in the "Tool to calculate project or leakage CO2 emissions from fossil fuel combustion" Version 02 is used to calculate the project emissions

D.3. Implementation of sampling plan

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Not Applicable

SECTION E. Calculation of emission reductions or GHG removals by sinks

E.1. Calculation of baseline emissions or baseline net GHG removals by sinks

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As per the applied methodology AMS I D version 17, the baseline emissions are the product of electrical energy baseline $EG_{BL,y}$ expressed in MWh of electricity produced by the renewable generating unit multiplied by the grid emission factor.

$$BE_y = EG_{BL,y} * EF_{CO_2,grid,y}$$

Where:

BE_y Baseline Emissions in year y; t CO₂

$EG_{BL,y}$ Quantity of net electricity supplied to the grid as a result of the implementation of the CDM project activity in year y (MWh)

$EF_{CO_2,grid,y}$ CO2 emission factor of the grid in year y (t CO₂/MWh)

Accordingly, the baseline emissions of the project have been calculated below:

$$BE_y = 76814 \text{ (MWh)} * 0.8400 \text{ (tCO}_2\text{e/MWh)} = 64,524 \text{ tCO}_2\text{e}$$

Calculation tables for baseline emissions and emission reductions have been provided in Annexure 1.

E.2. Calculation of project emissions or actual net GHG removals by sinks

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Though the project is renewable energy based power generation, the project activity uses a DG set on-site, hence the emissions from the DG set are considered as described in the PDD:

$$PE_{FC,j,y} = \sum_i FC_{i,j,y} \times COEF_{i,y}$$

$$COEF_{i,y} = NCV_{i,y} \times EF_{CO_2,i,y}$$

$$PE_{FC,j,y} = 1375 \text{ (l)} * 0.83 \text{ (kg/l)} * 0.0031233 \text{ (tCO}_2\text{e/kg)} = 3.56 \text{ tCO}_2\text{e (considered as 4 conservatively)}$$

Calculations table for project emissions has been provided in Annexure 1.

E.3. Calculation of leakage

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No leakage is considered from the project activity as per approved methodology.

E.4. Summary of calculation of emission reductions or net GHG removals by sinks

Item	Baseline emissions or baseline net GHG removals by sinks (t CO ₂ e)	Project emissions or actual net GHG removals by sinks (t CO ₂ e)	Leakage (t CO ₂ e)	GHG emission reductions or net GHG removals by sinks (t CO ₂ e) achieved in the monitoring period		
				Up to 31/12/2012	From 01/01/2013	Total amount
Total	64,520	4	0	0	64,520	64,520

E.5. Comparison of actual emission reductions or net GHG removals by sinks with estimates in registered PDD

Item	Values estimated in ex ante calculation of registered PDD	Actual values achieved during this monitoring period
Emission reductions or GHG removals by sinks (t CO ₂ e)	55,734 (19,693 per annum)	64,520

E.6. Remarks on difference from estimated value in registered PDD

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From E.5 above, we can observe that actual emission reduction for the current monitoring is higher than estimated emission reductions in PDD by 15.65%. This is due to various reasons associated with heavy rains & snow, flood inflows in to the river and other climatic reasons, which are beyond the control of PP, resulted in higher power generation by the project activity.

Appendix I

Monitoring month	Net energy export (kWh)	Net energy export (MWh)	Grid emission factor (tCO ₂ /MWh)	Baseline emissions (tCO ₂)
Jan-13	748100.00	748	0.84	628
Feb-13	1008200.00	1008	0.84	847
Mar-13	1811300.00	1811	0.84	1521
Apr-13	1820000.00	1820	0.84	1529
May-13	1677619.41	1678	0.84	1409
Jun-13	2078157.14	2078	0.84	1746
Jul-13	2468041.15	2468	0.84	2073
Aug-13	2878846.45	2879	0.84	2418
Sep-13	3147268.17	3147	0.84	2644
Oct-13	2730513.48	2731	0.84	2294
Nov-13	1260193.30	1260	0.84	1059
Dec-13	860326.73	860	0.84	723
Jan-14	505484.63	505	0.84	425
Feb-14	918219.94	918	0.84	771
Mar-14	2635934.97	2636	0.84	2214
Apr-14	2660421.09	2660	0.84	2235
May-14	4057552.72	4058	0.84	3408
Jun-14	3529515.70	3530	0.84	2965
Jul-14	3175969.77	3176	0.84	2668
Aug-14	3614395.80	3614	0.84	3036
Sep-14	2694925.23	2695	0.84	2264
Oct-14	1879918.82	1880	0.84	1579
Nov-14	1295389.86	1295	0.84	1088
Dec-14	970155.09	970	0.84	815
Jan-15	843996.42	844	0.84	709
Feb-15	1418509.99	1419	0.84	1192
Mar-15	3317063.57	3317	0.84	2786
Apr-15	3369087.82	3369	0.84	2830
May-15	2890234.19	2890	0.84	2428
Jun-15	2896711.66	2897	0.84	2433
Jul-15	3059614.87	3060	0.84	2570
Aug-15	3272535.04	3273	0.84	2749
Sep-15	3170307.05	3170	0.84	2663
Oct-15	2149573.63	2150	0.84	1806
Total	76814083.69	76814	28.56	64524

Monitoring month	Diesel Consumption (Liters)	Diesel density (kg/liter)	Diesel Consumption (kg)	NCV of diesel (kcal/kg)	Emission factor diesel (tCO ₂ e/TJ)	CO ₂ coefficient (tCO ₂ /kg)	Project emissions (tCO ₂)
Jan-13	0	0.83	0	9975	74.8	0.0031233	0.00
Feb-13	100	0.83	83	9975	74.8	0.0031233	0.26
Mar-13	105	0.83	87.15	9975	74.8	0.0031233	0.27
Apr-13	50	0.83	41.5	9975	74.8	0.0031233	0.13
May-13	100	0.83	83	9975	74.8	0.0031233	0.26
Jun-13	120	0.83	99.6	9975	74.8	0.0031233	0.31
Jul-13	60	0.83	49.8	9975	74.8	0.0031233	0.16
Aug-13	100	0.83	83	9975	74.8	0.0031233	0.26
Sep-13	60	0.83	49.8	9975	74.8	0.0031233	0.16
Oct-13	0	0.83	0	9975	74.8	0.0031233	0.00
Nov-13	120	0.83	99.6	9975	74.8	0.0031233	0.31
Dec-13	100	0.83	83	9975	74.8	0.0031233	0.26
Jan-14	80	0.83	66.4	9975	74.8	0.0031233	0.21
Feb-14	80	0.83	66.4	9975	74.8	0.0031233	0.21
Mar-14	0	0.83	0	9975	74.8	0.0031233	0.00
Apr-14	0	0.83	0	9975	74.8	0.0031233	0.00
May-14	0	0.83	0	9975	74.8	0.0031233	0.00
Jun-14	30	0.83	24.9	9975	74.8	0.0031233	0.08
Jul-14	10	0.83	8.3	9975	74.8	0.0031233	0.03
Aug-14	20	0.83	16.6	9975	74.8	0.0031233	0.05
Sep-14	20	0.83	16.6	9975	74.8	0.0031233	0.05
Oct-14	0	0.83	0	9975	74.8	0.0031233	0.00
Nov-14	0	0.83	0	9975	74.8	0.0031233	0.00
Dec-14	40	0.83	33.2	9975	74.8	0.0031233	0.10
Jan-15	60	0.83	49.8	9975	74.8	0.0031233	0.16
Feb-15	20	0.83	16.6	9975	74.8	0.0031233	0.05
Mar-15	0	0.83	0	9975	74.8	0.0031233	0.00
Apr-15	40	0.83	33.2	9975	74.8	0.0031233	0.10
May-15	60	0.83	49.8	9975	74.8	0.0031233	0.16
Jun-15	0	0.83	0	9975	74.8	0.0031233	0.00
Jul-15	0	0.83	0	9975	74.8	0.0031233	0.00
Aug-15	0	0.83	0	9975	74.8	0.0031233	0.00
Sep-15	0	0.83	0	9975	74.8	0.0031233	0.00
Oct-15	0	0.83	0	9975	74.8	0.0031233	0.00
Total	1375		1141.25				4

Monitoring month	Baseline emissions (tCO2)	Project emissions (tCO2)	Leakage emissions (tCO2)	Emission reductions (tCO2)
Jan-13	628	0.00	0	628
Feb-13	847	0.26	0	847
Mar-13	1521	0.27	0	1521
Apr-13	1529	0.13	0	1529
May-13	1409	0.26	0	1409
Jun-13	1746	0.31	0	1745
Jul-13	2073	0.16	0	2073
Aug-13	2418	0.26	0	2418
Sep-13	2644	0.16	0	2644
Oct-13	2294	0.00	0	2294
Nov-13	1059	0.31	0	1058
Dec-13	723	0.26	0	722
Jan-14	425	0.21	0	424
Feb-14	771	0.21	0	771
Mar-14	2214	0.00	0	2214
Apr-14	2235	0.00	0	2235
May-14	3408	0.00	0	3408
Jun-14	2965	0.08	0	2965
Jul-14	2668	0.03	0	2668
Aug-14	3036	0.05	0	3036
Sep-14	2264	0.05	0	2264
Oct-14	1579	0.00	0	1579
Nov-14	1088	0.00	0	1088
Dec-14	815	0.10	0	815
Jan-15	709	0.16	0	709
Feb-15	1192	0.05	0	1191
Mar-15	2786	0.00	0	2786
Apr-15	2830	0.10	0	2830
May-15	2428	0.16	0	2428
Jun-15	2433	0.00	0	2433
Jul-15	2570	0.00	0	2570
Aug-15	2749	0.00	0	2749
Sep-15	2663	0.00	0	2663
Oct-15	1806	0.00	0	1806
Total	64524	4	0	64520

Meter no	Type	Feeder	Make	Class	Meter specifications/Year	Date of calibration	Date of Installation	Date of Removal	Cablibrated by
11068616	Main	1	L&T	0.2S	TVM - ER300P/2011	22-12-2012	-	19-06-2013	Power Grid Corporation of India, Northern Region
11069603	Check	1	L&T	0.2S	TVM - ER300P/2011	22-12-2012	-	19-06-2013	Power Grid Corporation of India, Northern Region
11068614	Main	2	L&T	0.2S	TVM - ER300P/2011	22-12-2012	-	19-06-2013	Power Grid Corporation of India, Northern Region
11068622	Check	2	L&T	0.2S	TVM - ER300P/2011	22-12-2012	-	19-06-2013	Power Grid Corporation of India, Northern Region
11070245	Main	1	L&T	0.2S	TVM - ER300P/2011	17-06-2013	19-06-2013	20-12-2013	Power Grid Corporation of India, Northern Region
11070247	Check	1	L&T	0.2S	TVM - ER300P/2011	17-06-2013	19-06-2013	20-12-2013	Power Grid Corporation of India, Northern Region
11069070	Main	2	L&T	0.2S	TVM - ER300P/2011	17-06-2013	19-06-2013	20-12-2013	Power Grid Corporation of India, Northern Region
11068620	Check	2	L&T	0.2S	TVM - ER300P/2011	17-06-2013	19-06-2013	20-12-2013	Power Grid Corporation of India, Northern Region
11069603	Main	1	L&T	0.2S	TVM - ER300P/2011	19-12-2013	20-12-2013	11-06-2014	Power Grid Corporation of India, Northern Region
11068616	Check	1	L&T	0.2S	TVM - ER300P/2011	19-12-2013	20-12-2013	11-06-2014	Power Grid Corporation of India, Northern Region
11068622	Main	2	L&T	0.2S	TVM - ER300P/2011	19-12-2013	20-12-2013	11-06-2014	Power Grid Corporation of India, Northern Region
11068614	Check	2	L&T	0.2S	TVM - ER300P/2011	19-12-2013	20-12-2013	11-06-2014	Power Grid Corporation of India, Northern Region
11070247	Main	1	L&T	0.2S	TVM - ER300P/2011	10-06-2014	11-06-2014	18-12-2014	Power Grid Corporation of India, Northern Region
11070245	Check	1	L&T	0.2S	TVM - ER300P/2011	10-06-2014	11-06-2014	18-12-2014	Power Grid Corporation of India, Northern Region
11068620	Main	2	L&T	0.2S	TVM - ER300P/2011	10-06-2014	11-06-2014	18-12-2014	Power Grid Corporation of India, Northern Region
11069070	Check	2	L&T	0.2S	TVM - ER300P/2011	10-06-2014	11-06-2014	18-12-2014	Power Grid Corporation of India, Northern Region
11069603	Main	1	L&T	0.2S	TVM - ER300P/2011	15-12-2014	18-12-2014	16-06-2015	Power Grid Corporation of India, Northern Region
11068616	Check	1	L&T	0.2S	TVM - ER300P/2011	15-12-2014	18-12-2014	16-06-2015	Power Grid Corporation of India, Northern Region
11068622	Main	2	L&T	0.2S	TVM - ER300P/2011	15-12-2014	18-12-2014	16-06-2015	Power Grid Corporation of India, Northern Region
11068614	Check	2	L&T	0.2S	TVM - ER300P/2011	15-12-2014	18-12-2014	16-06-2015	Power Grid Corporation of India, Northern Region
11070245	Main	1	L&T	0.2S	TVM - ER300P/2011	12-05-2015	16-06-2015	-	Power Grid Corporation of India, Northern Region
11070247	Check	1	L&T	0.2S	TVM - ER300P/2011	12-05-2015	16-06-2015	-	Power Grid Corporation of India, Northern Region
11069070	Main	2	L&T	0.2S	TVM - ER300P/2011	12-05-2015	16-06-2015	-	Power Grid Corporation of India, Northern Region
11068620	Check	2	L&T	0.2S	TVM - ER300P/2011	12-05-2015	16-06-2015	-	Power Grid Corporation of India, Northern Region

Appendix 1. Contact information of project participants and responsible persons/entities

Project participant and/or responsible person/ entity	<input checked="" type="checkbox"/> Project participant <input type="checkbox"/> Person/entity responsible for completing the CDM-MR-FORM
Organization name	M/s Raajratna Energy Holdings Pvt Ltd
Street/P.O. Box	Plot No. 84, Kavuri Hills Phase II
Building	
City	Hyderabad
State/region	Andhra Pradesh (city now falls under Telangana state)
Postcode	500033
Country	India
Telephone	+91-40-23559922
Fax	+91-40-23559930
E-mail	
Website	
Contact person	
Title	Manager
Salutation	Mr.
Last name	Kumar
Middle name	-
First name	Gautam
Department	Finance
Mobile	+91 9963319900
Direct fax	+91-40-23110775
Direct tel.	-
Personal e-mail	gautamkumar@ksk.co.in

Project participant and/or responsible person/ entity	<input type="checkbox"/> Project participant <input checked="" type="checkbox"/> Person/entity responsible for completing the CDM-MR-FORM
Organization name	M/s Infinite Solutions
Street/P.O. Box	RNT Marg,
Building	611, Chetak Centre Main,
City	Indore
State/region	Madhya Pradesh
Postcode	452002
Country	India
Telephone	+91-731-4050174
Fax	-
E-mail	jimmy@infisolutions.org
Website	www.infisolutions.org
Contact person	
Title	General Manager
Salutation	Mr.
Last name	Sah
Middle name	-
First name	Jimmy
Department	Sustainability
Mobile	+91 9644130430
Direct fax	-
Direct tel.	+91-731-4050174
Personal e-mail	jimmy@infisolutions.org

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Document information

<i>Version</i>	<i>Date</i>	<i>Description</i>
05.1	4 May 2015	Editorial revision to correct version numbering.
05.0	1 April 2015	Revisions to: <ul style="list-style-type: none"> • Include provisions related to delayed submission of a monitoring plan; • Provisions related to the Host Party; • Remove reference to programme of activities; • Overall editorial improvement.
04.0	25 June 2014	Revisions to: <ul style="list-style-type: none"> • Include the Attachment: Instructions for filling out the monitoring report form (these instructions supersede the "Guideline: Completing the monitoring report form" (Version 04.0)); • Include provisions related to standardized baselines; • Add contact information on a responsible person(s)/ entity(ies) for completing the CDM-MR-FORM in A.6 and Appendix 1; • Change the reference number from <i>F-CDM-MR</i> to <i>CDM-MR-FORM</i>; • Editorial improvement.
03.2	5 November 2013	Editorial revision to correct table in page 1.
03.1	2 January 2013	Editorial revision to correct table in section E.5.
03.0	3 December 2012	Revision required to introduce a provision on reporting actual emission reductions or net GHG removals by sinks for the period up to 31 December 2012 and the period from 1 January 2013 onwards (EB70, Annex 11).
02.0	13 March 2012	Revision required to ensure consistency with the "Guidelines for completing the monitoring report form" (EB 66, Annex 20).
01	28 May 2010	EB 54, Annex 34. Initial adoption.
Decision Class: Regulatory Document Type: Form Business Function: Issuance Keywords: monitoring report		