**PROJECT DESIGN DOCUMENT FORM
FOR SMALL-SCALE CDM PROJECT ACTIVITIES (F-CDM-SSC-PDD)
Version 04.1**

PROJECT DESIGN DOCUMENT (PDD)

Title of the project activity	4.5 MW Small Hydro Power Project, Gokak Falls, District Belgaum, Karnataka State, India by Gokak Power and Energy Ltd.
Version number of the PDD	01
Completion date of the PDD	06/11/2013
Project participant(s)	Gokak Power and Energy Limited
Host Party(ies)	India
Sectoral scope(s) and selected methodology(ies)	01, AMS I-F, Renewable electricity generation for captive use and mini-grid
Estimated amount of annual average GHG emission reductions	4,932 t CO2/Annum

SECTION A. Description of project activity

A.1. Purpose and general description of project activity

The project activity is involving new installation of the 4.5 MW hydro power plants (HPP) by M/s Gokak Power & Energy Ltd (Subsidiary of M/s Gokak Textiles limited). The project activity falls under Sectoral Scope No1, Energy Industries (renewable/non- renewable Sources), and Type I-Renewable Energy projects. The installed capacity of the power plant is 4.5 MW which is less than the Type I limit of 15 MW.

Gokak Power & Energy Ltd (A subsidiary of Gokak Textiles Ltd) located at Gokak Falls, Gokak Town in Belgaum District of Karnataka State, with main objective of generating, Transmitting and distributing different type of energy and also to give a focus attention to expand its renewable energy generation capacity and it excepts to enlarge its present capacity from 10.8 MW into many folds in next five years.

The project will reduce emissions of greenhouse gas (GHG) as the electricity generated is totally from renewable energy source, which will displace electricity purchases from the national electricity grid.

The purpose of the proposed project is to generate 5,480 MWh of electricity per annum using a clean and renewable source of energy. The generated electricity will be supplied to the Gokak Textile Mills and will replace the equal amount of power which would have been generated by the operation of fossil fuel-intensive thermal power plants connected to the Southern regional grid of India. The generating power from hydro is a clean technology as there is no fossil fuel is fired or no GHG gases are emitted during the process. Thus, project activity leads to reduce the GHG emissions as it displaces power from fossil fuel based electricity generation in the regional grid.

The annual estimated emission reduction from the proposed activity is 4,932 tCO_2/Annum.

The project activity will principally reduce the purchasing of electricity from the national electricity grid and displace the generation of electricity by means of fossil fuels.

The new plant will be housed in a new powerhouse and will have a new 600-meter long separate water canal, an RCC penstock 150 meter in length and a 160-meter long mild steel penstock. The new 4.5 MW HPP will generate about 5.6 Million additional units (MU), due to the following factors:

1. Increased net head (about 14% more) for new 4.5 MW units
2. Increased water flow (8.04 m3/sec from the earlier flow 5.8 m3/sec) from the river Ghataprabha
3. Higher efficiency of new generator.

Pre- Project Scenario:

The scenario existing prior to the project Activity is that the power requirement of the Gokak Textiles Ltd uses supply from Karnataka Power Transmission Corporation Ltd. (KPTCL). The existing hydro power station of capacity of 3.5MW utilizes the flow of excess water during monsoon season from the river Ghataprabha and the generated power is being used to meet the power requirement of Gokak Textile Mills.

Baseline Scenario:

The baseline scenario identified as per the section B.4 of the PDD is Power generation from Karnataka Power Transmission Corporation Limited (KPTCL) as identified by the baseline scenario of AMS-I.F is that the electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources into the grid.

Social well being

The project will help in alleviation of poverty by generating direct and indirect employment during construction of the project as well as during operation. The project provided direct and indirect employment opportunities for the local people. The project provides additional source of income for the local poor people by providing employment, which otherwise would not happen in the absence of the project. In addition, the project creates direct employment on permanent roles for the plant people persons during the operational lifetime of the plant.

The proposed project activity will reduce the dependency on the grid power supply, thus reducing the load on the grid. This will help in improvement of electricity quality and availability in the region.

Economic well being

The project has brought additional investment to the region which otherwise would not happen in absence of the project. The electricity generated from the project would be used in the adjacent textile plant (Gokak Textiles Ltd.) as a captive power, thus reducing the dependency/demand on the grid electricity, which is always in great demand because of large gaps in demand & supply in India. Moreover, the project also leads to the reduction of T&D losses, which would have taken place due to power drawl from the grid in the absence of the project.

Environmental well being

The hydroelectric project has no negative environmental impacts because it relies on existing river releases (being a run of the river project) and does not involve any tree cutting or any submersion. The project utilizes hydro energy for generating electricity which otherwise would have been generated through fossil fuels based power plants and thus contributing to reduction of GHG emissions. The project will also result in reduction of local air pollutant emissions such as NOx, SOx, particulate matters, etc by displacing power from southern grid, which is mainly fossil fuel dependent.

Technological well being

The project activity utilizes an efficient horizontal Francis type reaction turbine with a capacity of 4.5MW. Thus the project is in accordance with interim approval criteria suggested for sustainable development by the DNA in India i.e. Ministry of Environment & Forest, Government of India for CDM projects.

A.2. Location of project activity

A.2.1. Host Party(ies)

India

A.2.2. Region/State/Province etc.

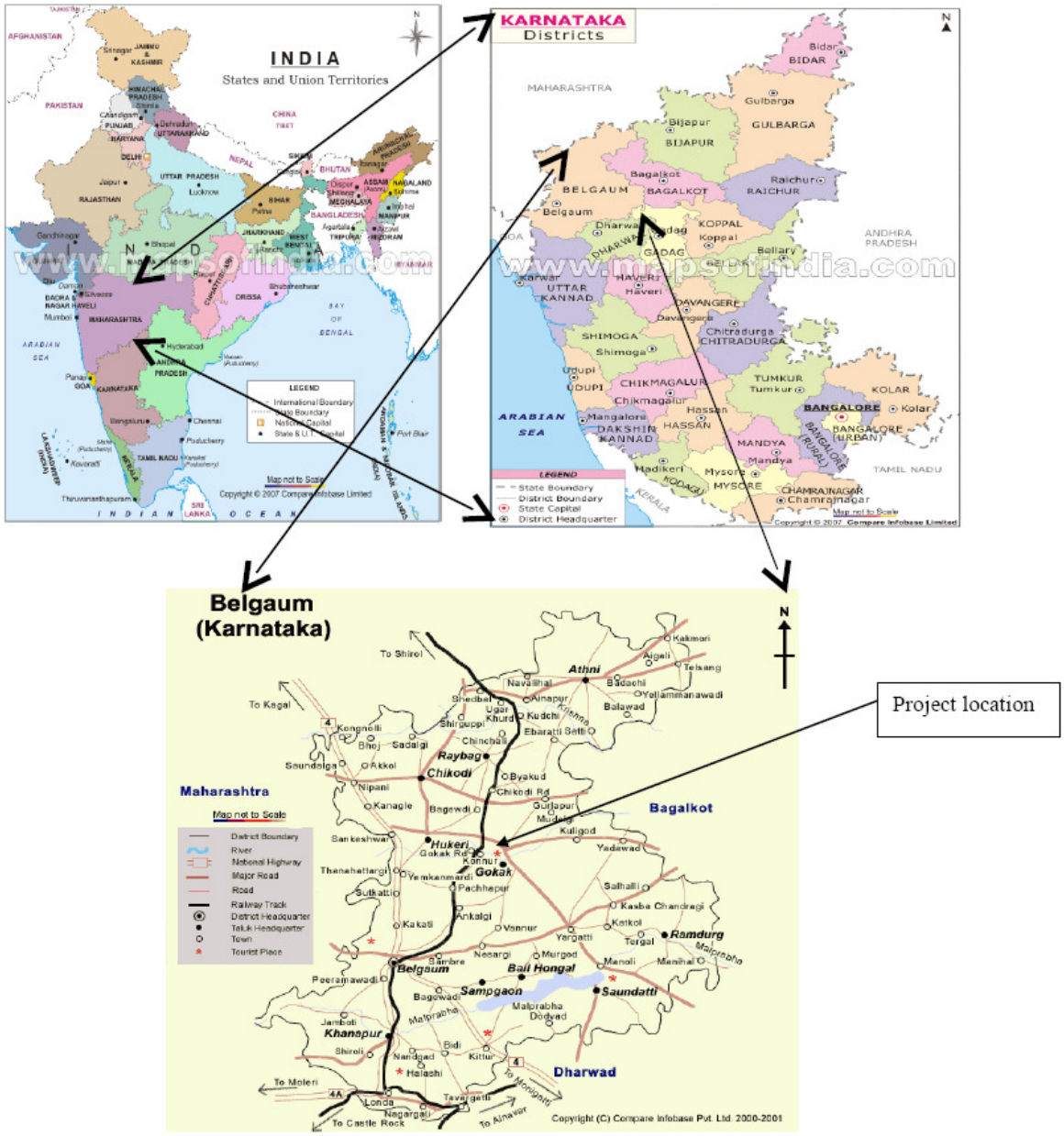
Karnataka state

A.2.3. City/Town/Community etc.

Gokak Falls, Gokak, Belgaum district

A.2.4. Physical/ Geographical location

Gokak Power & Energy Ltd. (A Subsidiary of Gokak Textiles Ltd) is located at Gokak Falls about 6 kilometres from Gokak town in Belgaum district of Karnataka state in India. The production facilities and hydropower plant of Gokak Power & Energy Ltd. (A Subsidiary of Gokak Textiles ltd.) Is located about 70 km from Belgaum city and can be reached by road. The geographical coordinates of Gokak falls are Latitude $16^0$11'28.68" N, longitude $74^0$46'42.24" E. Physical location of the project is shown in the figure.



A.3. Technologies and/or measures

As per the Appendix B (Indicative simplified baseline and monitoring methodologies for selected small-scale CDM project activity categories), the project activity falls under the following Type and Category.

Type **I**: Renewable Energy Projects

Category-F: Renewable electricity generation for captive use and mini-grid. Version: 02

The project activity 4.5 MW Hydro turbine is the new installation activity by M/s Gokak Power and Energy Limited.

The project activity mainly comprises of the following components:

- Canal intake at mills weir.
- 600 m long power canal
- penstock intake
- 150 m long RCC penstock
- 160 m long mild steel penstock
- New Power House
- Short tail race from power house to river course.

Technology for new 4.5 MW hydro power plant

Parameter	**Specifications**
Hydrology	
Gross Head	66 m
Net Head Available	63 m
Available Water Flow	8.04 m^3/sec
Turbine	
Type	Horizontal Francis
Rated Capacity	4.5 MW
Rated Head	58 m
Rated Flow	9 m^3/sec
Generator	
Type	Horizontal Synchronous
Number	1
Rated Output	4.5 MW
Generation Voltage	11 KV
Rated Speed	500/ 600 rpm
Power Factor	0.85
Frequency	50 Hz
Electricity Generation	
Expected Annual Electricity Generation	54.80 Million Units (MU)

A.4. Parties and project participants

Party involved (host) indicates a host Party	**Private and/or public entity(ies) project participants (as applicable)**	**Indicate if the Party involved wishes to be considered as project participant (Yes/No)**
India	Gokak Power and Energy Limited (Private)	No

A.5. Public funding of project activity

The project activity does not involve any public funding from Annex 1 countries.

A.6. Debundling for project activity

As per the Project Standards and Guidelines on Assessment of Debundling for SSC Project Activities[1]
"A proposed small-scale project activity shall be deemed to be a de bundled component of a large project activity if there is a registered small-scale CDM project activity or an application to register another small-scale CDM project activity":

(a) With the same project participants;
(b) In the same project category and technology/measure; and
(c) Registered within the previous 2 years; and
(d) Whose project boundary is within 1 km of the project boundary of the proposed small- scale activity at the closest point

Justification:

The project proponent confirms that it has not registered any small scale CDM activity or applied for registration of another small scale CDM project activity within 1km of the respective project boundaries of this project in the same project category, technology/measure with same methodology. Hence the above criteria of de bundling cases are not applicable for this CDM project.

SECTION B. Application of selected approved baseline and monitoring methodology
B.1. Reference of methodology

Type 1- Energy Industries (Renewable)

Methodology –AMS I.F, Version 02(I.F. Renewable electricity generation for captive use and mini-grid)

Reference -
http://cdm.unfccc.int/filestorage/4/1/J/41JF08WD9MSEB5YLHTZ6KVAPUC7XNQ/EB61_repan18_Revision_%20AMS-I.F_ver02.pdf?t=UzV8bXRxYTEyfDDhNXHrTq4BSJBEgZZWT7yd

B.2. Project activity eligibility

S .No	**Project Eligibility**	**Justification**
1	This methodology comprises renewable energy generation units, such as photovoltaic, hydro, tidal/wave, wind, geothermal and renewable biomass that supply electricity to user(s). The project activity will displace electricity from an electricity distribution system that is or would	The project Activity is the new installation of the hydro energy generation unit of 4.5 MW by M/s Gokak Power and Energy Limited. The electricity generated by the project activity is used for the captive purpose and

[1] http://cdm.unfccc.int/Reference/Guidclarif/ssc/methSSC_guid17.pdf

	have been supplied by at least one fossil fuel fired generating unit i.e. in the absence of the project activity, the users would have been supplied electricity from one or more sources listed below: (a) A national or a regional grid (grid hereafter); (b) Fossil fuel fired captive power plant;[2] (c) A carbon intensive mini-grid.	displace the power import from the regional Grid(Southern grid)
2	For the purpose of this methodology, a mini-grid is defined as small-scale power system with a total capacity not exceeding 15 MW (i.e. the sum of installed capacities of all generators Connected to the mini-grid is equal to or less than 15 MW) which is not connected to a national or a regional grid.	There is no power utilisation from the mini grid in the baseline scenario. Therefore point 2 of the applicability criteria is excluded.
3	Hydro power plants with reservoirs that satisfy at least one of the following conditions are eligible to apply this methodology: • The project activity is implemented in an existing reservoir with no change in the volume of reservoir; • The project activity is implemented in an existing reservoir, where the volume of reservoir is increased and the power density of the project activity, as per definitions given in the project emissions section, is greater than 4 W/m2; • The project activity results in new reservoirs and the power density of the power plant, as per definitions given in the project emissions section, is greater than 4 W/m2.	"The proposed project activity is a run-of-river project and does not implement in reservoir". Thus this criteria is not applicable to the project activity.
4	For biomass power plants, no other biomass other than renewable biomass are to be used in the project plant.	The project Activity is not a biomass based Power plant. Hence it is excluded.
5	This methodology is applicable for project activities that: (a) Install a new power plant at a site where there was no renewable energy power plant operating prior to the implementation of the project activity (Greenfield plant); (b) Involve a capacity addition,[3] (c) Involve a retrofit[4] of (an)	The project activity is a new installation (Green Field type) implementation of the project Activity.

[2] Where the users of the captive electricity are also connected to the grid in the project site.

[3] A capacity addition is an increase in the installed power generation capacity of an existing power plant through: (i) The installation of a new power plant beside the existing power plant/units; or (ii) The installation of new power units, additional to the existing power plant/units. The existing power plant/units continue to operate after the implementation of the project activity.

	existing plant(s); or (d) Involve a replacement[5] of (an) existing plant(s)	
6	In the case of project activities that involve the capacity addition of renewable energy generation units at an existing renewable power generation facility, the added capacity of the units added by the project should be lower than 15 MW and should be physically distinct[6] from the existing units.	The project activity is not a capacity addition at the existing renewable energy power generation facility Hence this scenario is not applicable.
7	In the case of retrofit or replacement, to qualify as a small-scale project, the total output of the retrofitted or replacement unit shall not exceed the limit of 15 MW.	The project activity is not a retrofication in the existing renewable energy power generation facility Hence this scenario is not applicable.
8	If the unit added has both renewable and non-renewable components (e.g. a wind/diesel unit), the eligibility limit of 15 MW for a small-scale CDM project activity applies only to the renewable component. If the unit added co-fires fossil fuel,[7] the capacity of the entire unit shall not exceed the limit of 15 MW.	The project activity is not a capacity addition in existing project. Hence this criterion is not applicable to the project Activity.
9	Combined heat and power (co-generation) systems are not eligible under this category.	The project Activity is not a combined heat and power type and hence this criterion is not applicable to the project Activity.
10	If electricity and/or steam/heat produced by the project activity is delivered to a third party i.e. another facility or facilities within the project boundary, a contract between the supplier and consumer(s) of the energy will have to be entered that ensures that there is no double counting of emission reductions.	The electricity generated by the project activity is not delivered to the third party. Hence this criterion is not applicable to the project activity.

[4] Retrofit (or rehabilitation or refurbishment). A retrofit is an investment to repair or modify an existing power plant/unit, with the purpose to increase the efficiency, performance or power generation capacity of the plant, without adding new power plants or units, or to resume the operation of closed (mothballed) power plants. A retrofit restores the installed power generation capacity to or above its original level. Retrofits shall only include measures that involve capital investments and not regular maintenance or housekeeping measures.

[5] Replacement. Investment in a new power plant or unit that replaces one or several existing unit(s) at the existing power plant. The new power plant or unit has the same or a higher power generation capacity than the plant or unit that was replaced.

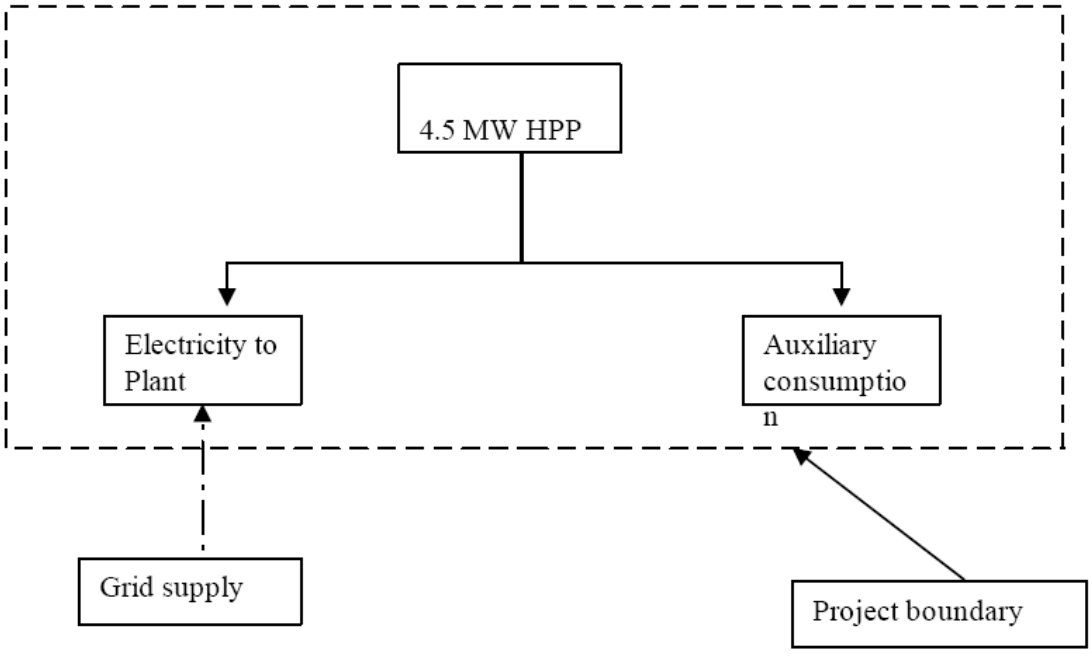
[6] Physically distinct units are those that are capable of generating electricity without the operation of existing units, and that do not directly affect the mechanical, thermal, or electrical characteristics of the existing facility. For example, the addition of a steam turbine to an existing combustion turbine to create a combined cycle unit would not be considered "physically distinct".

[7] A co-fired system uses both fossil and renewable fuels, for example the simultaneous combustion of both biomass residues and fossil fuels in a single boiler. Fossil fuel may be used during a period of time when the biomass is not available and due justification are provided.

B.3. Project boundary

The spatial extent of the project boundary identified as per the AMS I.F, Version 02 includes the following:

1) The Hydro turbine (4.5 MW) which supplies the power (CDM Project Activity)
2) M/s Gokak Textiles, which utilizes the power (Recipient).
3) The physical project boundary essentially covers the diversion weir, power channel, surcharge shaft, penstock, powerhouses (for 4.5 MW) & tailrace and the transmission system till the textile plant. The project boundary is shown below.



B.4. Establishment and description of baseline scenario

The baseline scenario for the project Activity is established by considering the paragraph (14) of the methodology AMS.I.F, Version 2.The most plausible baseline scenario for project activity is to import electricity from grid. Therefore, the PP is replacing electricity from grid hence the displacement of electricity from grid is the baseline scenario for project activity.

The baseline scenario for the project Activity is established by considering the paragraph (14), paragraph (15) and paragraph (16) of the methodology AMS.I.F, Version 2.The proposed project Activity is a new installation of the 4.5 MW Hydro power plants as per the paragraph 14 of the methodology AMS I.F, the Baseline emissions for other systems are the product of amount electricity displaced with the electricity produced by the renewable generating unit and an emission factor.

As per the paragraph 14 of AMS-I.F Version-02, Baseline emissions for other systems are the product of amount electricity displaced with the electricity produced by the renewable generating unit and an emission factor.

$$BE_y = EG_{BL,y} * EF_{CO_2,y} \quad \textbf{(1)}$$

Where:

BE_y	Baseline emissions in year *y* (t CO_2)
$EG_{BL,y}$	Quantity of net electricity displaced as a result of the implementation of the CDM project activity in year *y* (MWh)
$EF_{CO2,y}$	Grid emission factor (tCO_2/MWh) •

As per para 12, AMS 1D, version 17, the Emission Factor can be calculated in a transparent and conservative manner as follows:

(a) A combined margin (CM), consisting of the combination of operating margin (OM) and build margin (BM) according to the procedures prescribed in the "Tool to calculate the Emission Factor for an electricity system".

OR

(b) The weighted average emissions (in t CO2/MWh) of the current generation mix. The data of the year in which project generation occurs must be used.

Calculations shall be based on data from an official source (where available) and made publicly available.

The project proponent has opted for approach 'a' i.e. combined margin emission factor and desired to keep the emission factor constant throughout the crediting period.

The baseline emission factor ($EF_{CO2,grid,y}$) as per the "Tool to calculate the emission factor for an electricity system" Version 02.21, EB: 63 Annex: 19" is calculated as a combined margin (CM), consisting of the combination of Operating Margin (OM) and Build Margin (BM). The steps for calculating the baseline emission factor has been provided in Annex 4 of the PDD.

Key Parameter/ Value	**Value**	**Data Source**
$EG_{BL,y}$	5480MWh	DPR
$EF_{grid,OM,y}$	0.9481 tCO2e/MWh	"CO2 Baseline Database Version 8" published by CEA. This is official source of date, by CEA, Government of India which is based on Tool to calculate the emission factor for an electricity system"
$EF_{grid,BM,y}$	0.8522 tCO2e/MWh	"CO2 Baseline Database Version 8" published by CEA. This is official source of date, by CEA, Government of India which is based on Tool to calculate the emission factor for an electricity system"

$EF_{grid,CM,y}$	0.9002 tCO2e/MWh	"CO2 Baseline Database Version 8" published by CEA. This is official source of date, by CEA, Government of India which is based on Tool to calculate the emission factor for an electricity system"
BE_y	4932 tCO2e	Calculated by multiplying $EG_{BL,y}$ (MWh) and EF_{CO2}, $_{grid, y}$ (tCO2e/MWh)

Thus, the grid emission factor for the project activity is 0.9002 tCO2/ MWh and is fixed for the entire crediting period.

In our specific case, the baseline is arrived by multiplying the power generation units of the 4.5 MW Hydro power plants with the Grid emission factor. The regional grid applicable to this project is 'Southern grid'.

The Combined Margin Grid emission factor (for the southern grid) is used for emission reduction calculations as per the Methodology. The value is taken from the website of Central electricity Authority (CEA), Ministry of Power, Government of India. The detailed calculations of the operating and build margins have been provided in 'CO_2 Baseline Database, Version 8 ', at CEA website.[8]

B.5. Demonstration of Additionality

The Additionality for the project Activity is determined with reference to Project Standard and Guidelines on the demonstration of Additionality of small-scale project activities[9], Version 9.

The Guidelines states the following:

Project participants shall provide an explanation to show that the project activity would not have Occurred anyway due to at least one of the following barriers:

(a) Investment barrier: a financially more viable alternative to the project activity would have led to higher emissions;

(b) Technological barrier: a less technologically advanced alternative to the project activity involves lower risks due to the performance uncertainty or low market share of the new technology adopted for the project activity and so would have led to higher emissions;

Barrier due to prevailing practice: prevailing practice or existing regulatory or policy requirements would have led to implementation of a technology with higher emissions;

[8] http://www.cea.nic.in/reports/planning/cdm_co2/user_guide_ver8.pdf
[9] http://cdm.unfccc.int/Reference/Guidclarif/meth/methSSC_guid05.pdf

(c) Other barriers: without the project activity, for another specific reason identified by the project participant, such as institutional barriers or limited information, managerial resources, organizational capacity, financial resources, or capacity to absorb new technologies, emissions would have been higher.

The project faced an investment barrier to its implementation; hence according to the Guidelines on the Demonstration of Additionality of Small-scale Project Activities, EB 68 Annex 27 Version 9, investment barrier has been chosen to demonstrate additionality.

Investment Barrier

The project follows the "Non-binding best practice examples to demonstrate additionality for SSC project activities." and option 1.(a), of Guidelines on the Demonstration of Additionality of Small-scale Project Activities, EB 68 Annex 27 version 9 i.e. Investment Barrier to demonstrate additionality.

Appropriateness of using benchmark analysis for additionality demonstration and its conformity to guidance 19 of Annex 5, EB 627 -
Considering the fact that the alternative to the project is the supply of electricity from the grid & the choice of the developer is to invest or not to invest, benchmark analysis has been considered appropriate for demonstration of additionality, which is in conformity with guidance 19 Annex 5 EB 62, which says

"*If the proposed baseline scenario leaves the project participant no other choice than to make an investment to supply the same (or substitute) products or services, a benchmark analysis is not appropriate and an investment comparison analysis shall be used. If the alternative to the project activity is the supply of electricity from a grid this is not to be considered an investment and a benchmark approach is considered appropriate."*

Selection of Benchmark & Financial Indicator:
Project proponents have considered post-tax Equity IRR for investment analysis at the time of decision making. As Project proponents is only interested in the returns project is generating on the portion of investment costs which is financed by them in the form of equity.

As per Para 12 of the Guidance to Investment Analysis states that required returns on equity is appropriate post-tax benchmark for post-tax Equity IRR. Therefore the Expected return on equity is considered appropriate post-tax benchmark.

Accordingly, the post tax Equity IRR has been considered as the relevant financial indicator for Investment Analysis.

Benchmark Calculation:

In accordance with Guidance 15 EB 62 Annex5,

"*If the benchmark is based on parameters that are standard in the market, the cost of equity should be determined either by:*
(a) selecting the values provided in Appendix A; or by
(b) calculating the cost of equity using best financial practices,..."

Hence, PP has calculated benchmark using option (a)

(a) Benchmark - Expected Return on Equity based on Default value as per Appendix A in EB62 Annex5

The Expected Return on Equity (benchmark) is computed in the following manner:

Nominal Benchmark[8] = {(1+Real Benchmark)*(1+Inflation rate)}-1
Where:

- Default value for Real Benchmark = 11.75%
- Projected Inflation Rate for India in next 5 years &/or 10 years (Reserve Bank of India Forecast)

Inflation forecast (WPI Median) as per RBI for 5 yr is 6.00% and for 10 years is 5%.
The default value benchmark is 18.46% and 17.34% respectively. The conservative chosen benchmark is 17.34%.

Parameters used for the IRR calculation:

Description	*Value*
Total project cost	INR 148.83 million
Means of Finance: - Share Capital - Term Loan	 INR 26.05 million INR 122.79 million
Additional electricity generation (over and above to the same in baseline) per annum	5600 MWH
Electricity tariff considered for revenue calculation from the project	INR 4.2/ kWh
Interest on Term Loans	8 %
Operation & Maintenance	2% of project cost with yearly escalation of 5 %
Depreciation	3.4%
Loan Period	5 years
Income tax holiday	10 years
Annual emission reductions	4760 tCO2
CER Price	Euro 8
Exchange Rate INR = Euro	56

Serious Consideration of the CDM is established for the project activity, as per the paragraph (28) of the Clean Development Mechanism Project Standard, since the start date of the project activity is before 2 Aug 2008.

Date of Events	Events/Milestones	Source/Reference
11 Sep. 2006	PO to TCE for DPR preparation and engineering services on 4.5 MW Hydro Power Project	PO copy for DPR preparation
Nov. 2006	DPR prepared by TCE With Financial Analysis	DPR copy

Dec. 2006	Board Resolution	Copy of Board Resolution document
18 Jan. 2007	Bidding/Quotation from Technology Supplier	Copy of the Bidding document
27 Dec. 2007	2nd Board of Directors Meeting	Copy of the Minutes of Meeting
16 Jul. 2007	PO for Erection, Testing Commissioning of Hydro Power Project	PO copy of the turbine
06 Sep. 2007	Civil Works for Water conducting system	PO placement copy
06 Oct. 2007	WO for Civil Works Design & Fabrication	Work order copy for Civil Works and Designs
31 May. 2008	PO for CDM Consultancy	PO copy of TERI
06 Oct. 2008	Local Stakeholder Invitation	Letter of Invitation, published is local newspaper---
10 Oct. 2008	Local Stakeholder's Meeting	Minutes of Meeting, List of Attendees
15 Jan 2010	Letter to MoEF for HCA-1	HCA Request letter
12 Dec. 2012	1st Round of Host Country Approval	HCA copy
04 Mar.2013	Letter to MoEF for HCA-2	Copy of Letter

07 May. 2013	2nd Round of Host Country Approval	HCA copy
15 May 2013	Contract with DOE for CDM validation	Copy of the contract with the DOE
17 Sep.2013	Appointment of 2nd Consultant	Contract Copy

B.6. Emission reductions

B.6.1. Explanation of methodological choices

The Emission Reduction calculation as per AMS I.F, Version 02 is given below:

Baseline Emission Calculation:

Baseline emissions for other systems are the product of amount electricity displaced with the electricity produced by the renewable generating unit and an emission factor.

General Set of Equations:

Equation used in the PDD	Explanation of Methodological choices
$BE_y = EG_{BL,y} * EF_{CO_2,y}$	Equation 1 AMS-I.F Version 02. Following paragraph 14 in AMS-I.F Version 02, Baseline emissions for other systems are the product of amount electricity displaced with the electricity produced by the renewable generating unit and an emission factor. Hence the above equation is being used to derive baseline emissions.

$$BE_y = EG_{BL,y} * EF_{CO_2,y} \quad \textbf{(2)}$$

Where:

BE_y	Baseline emissions in year *y* (t CO_2)
$EG_{BL,y}$	Quantity of net electricity displaced as a result of the implementation of the CDM project activity in year *y* (MWh)
$EF_{CO2,y}$	Grid Emission factor (tCO_2/MWh)

Calculation procedure for Grid Emission Factor:

The emission factor can be calculated in a transparent and conservative manner as follows:

(a) A combined margin (CM), consisting of the combination of operating margin (OM) and build margin (BM) according to the procedures prescribed in the "Tool to calculate the Emission Factor for an electricity system";

OR

(b) The weighted average emissions (in t CO_2/MWh) of the current generation mix. The data of the year in which project generation occurs must be used.

Calculations shall be based on data from an official source (where available)[10] and made publicly available.

Project Emission Calculation

For most renewable energy project activities, PE_y = 0. However, for the following categories of project activities, project emissions including relevant definitions have to be considered following the procedure described in the most recent version of ACM0002.[11]

- Emissions related to the operation of geothermal power plants (e.g. non-condensable gases, electricity/fossil fuel consumption);
- Emissions from water reservoirs of hydro power plants.

Leakage

If the energy generating equipment is transferred from another activity, leakage is to be considered.

Emission reductions

[10] Plant emission factors used for the calculation of emission factors should be obtained in the following priority:

1. *Acquired directly* from the dispatch center or power producers, if available; or
2. *Calculated*, if data on fuel type, fuel Emission Factor, fuel input and power output can be obtained for each plant;
   If confidential data available from the relevant host Party authority are used, the calculation carried out by the project participants shall be verified by the DOE and the CDM-PDD may only show the resultant carbon emission factor and the corresponding list of plants;
3. *Calculated*, as above, but using estimates such as: default IPCC values from the 2006 IPCC Guidelines for *National* GHG Inventories for net calorific values and carbon emission factors for fuels instead of plant-specific values technology provider's name plate power plant efficiency or the anticipated energy efficiency documented in official sources (instead of calculating it from fuel consumption and power output). This is likely to be a conservative estimate, because under actual operating conditions plants usually have lower efficiencies and higher emissions than name plate performance would imply; conservative estimates of power plant efficiencies, based on expert judgments on the basis of the plant's technology, size and commissioning date; or
4. *Calculated*, for the simple OM and the average OM, using aggregated generation and fuel consumption data, in cases where more disaggregated data is not available.

[11] ACM0002 "Consolidated baseline methodology for grid-connected electricity generation from renewable sources"

Emission reductions are calculated as follows:

$$ER_y = BE_y - PE_y - LE_y \quad (3)$$

Where:

ER_y	Emission reductions in year y (t CO_2e/y)
BE_y	Baseline Emissions in year y (t CO_2/y)
PE_y	Project emissions in year y (t CO_2/y)
LE_y	Leakage emissions in year y (t CO_2/y)

B.6.2. Data and parameters fixed ex ante

Data / Parameter	**$EF_{grid,CM,y}$**
Unit	t CO_2 e/ MWh
Description	Ex-ante Combined margin CO_2 emission factor for the Southern grid
Source of data	Baseline CO_2 Emission Database, Version 8.0 published in Jan'13.
Value(s) applied	0.9002
Choice of data or Measurement methods and procedures	The inputs values of OM and BM have been sourced from CEA database version 8, Jan 2013 (Ministry of Power, Central Electricity Authority Govt. of India), hence are authentic and reliable. http://www.cea.nic.in/reports/planning/cdm_co2/cdm_co2.htm The $EF_{grid, CM, y}$ calculation is based on the guidelines in "Tool to calculate the emission factor for an electricity system" (version 03.0.0, EB 70, Annex 22)
Purpose of data	The Combined Margin Emission Factor has been calculated as a weighted sum of Operating Margin emission factor and Build Margin emission factor taking the weight age value as 0.50 and 0.50 respectively.
Additional comment	The PP has opted for ex-ante approach for the determination of combined margin emission factor where emission factor is fixed for the entire crediting period so the value need not to be monitored.

Data / Parameter	**$EF_{grid,OM,y}$**
Unit	t CO_2 e/ MWh
Description	Ex-ante Combined margin CO_2 emission factor for the Southern grid
Source of data	Baseline CO_2 Emission Database, Version 8.0 published in Jan'13.
Value(s) applied	0.9481
Choice of data or Measurement methods and procedures	The values for OM has been sourced from CEA database version 8, Jan 2013 (Ministry of Power, Central Electricity Authority Govt. of India) latest last three years (2009-10, 2010-11 & 2011-12) average, hence are authentic and reliable. http://www.cea.nic.in/reports/planning/cdm_co2/cdm_co2.htm The $EF_{grid\ OM,\ y}$ calculation is based on the guidelines in "Tool to calculate the emission factor for an electricity system" (version 03.0.0, EB 70, Annex 22)
Purpose of data	Calculation of Ex-ante Combined margin CO_2 emission factor for the Southern grid
Additional comment	The values are based on latest last three years average.The PP has opted for ex-ante approach for the determination of combined margin emission factor where emission factor is fixed for the entire crediting period so the value need not to be monitored.

Data / Parameter	**$EF_{grid,BM,y}$**
Unit	t CO_2 e/ MWh
Description	Build margin (including import) CO_2 emission factor for the Southern grid
Source of data	Baseline CO_2 Emission Database, Version 8.0 published in Jan'13.
Value(s) applied	0.8522
Choice of data or Measurement methods and procedures	The values for BM for the year 2011-12 has been sourced from CEA database version 8, Jan 2013 (Ministry of Power, Central Electricity Authority Govt. of India), hence are authentic and reliable. http://www.cea.nic.in/reports/planning/cdm_co2/cdm_co2.htm The $EF_{grid\ BM,\ y}$ calculation is based on the guidelines in "Tool to calculate the emission factor for an electricity system" (version 03.0.0, EB 70, Annex 22)
Purpose of data	Calculation of Ex-ante Combined margin CO_2 emission factor for the Southern grid
Additional comment	The values are for the year 2011-12

B.6.3. Ex-ante calculation of emission reductions

Baseline emission (BE_y):

$EG_{BL,y}$	=	(4.5*200*24*25.37%) = 5480 MWh

$EF_{grid,CM,y}$	= = =	0.9002 tCO2e/MWh $EG_{BL,y}$ * $EF_{grid,CM,y}$ 4932 tCO2/year

Project Emission (PE y)

For most renewable energy project activities, PE_y = 0. Hence Project Emission is considered as 0 for the project activity p.

Leakage

There is no transference of Energy generating equipment outside the project boundary. Hence leakage is considered as 0.

L= 0

Emission reductions

Emission reductions are calculated as follows:

$$ER_y = BE_y - PE_y - LE_y$$

E R y = 4932 t CO2/Annum

B.6.4. Summary of ex-ante estimates of emission reductions

Year	Baseline emissions (tCO_2 e)	Project emissions (tCO_2 e)	Leakage (tCO_2 e)	Emission reductions (tCO_2 e)
Year 1	4932	0	0	4932
Year 2	4932	0	0	4932
Year 3	4932	0	0	4932
Year4	4932	0	0	4932
Year 5	4932	0	0	4932
Year 6	4932	0	0	4932
Year 7	4932	0	0	4932
Year 8	4932	0	0	4932
Year 9	4932	0	0	4932
Year 10	4932	0	0	4932
Total	49320	0	0	49320
Total number of crediting years	10			

Annual average over the crediting period	4932	0	0	4932

B.7. Monitoring plan

B.7.1. Data and parameters to be monitored

Data / Parameter	$EG_{BL,y}$
Unit	MWh/y
Description	Quantity of net electricity displaced in year *y*
Source of data	Plant record
Value(s) applied	5480
Measurement methods and procedures	By employing electricity meter
Monitoring frequency	continuous
QA/QC procedures	Measurements are undertaken using energy meters. Calibration will be undertaken as prescribed in the relevant paragraph of the "General Guidelines to SSC CDM Methodologies
Purpose of data	Used for emission Reduction Calculations
Additional comment	-

B.7.2. Sampling plan

No sampling plan involved in the project activity

B.7.3. Other elements of monitoring plan

The parameters identified for measurement are total electricity generation and the auxiliary power consumption by 4.5 MW plant. Gokak Power & Energy Ltd. (A Subsidiary of Gokak Textiles Ltd.) will install 2 separate energy meters for measurements of total power generated and supplied to the plant, from the 4.5 hydro power plant and auxiliary power consumption in the same. The total power generated by the project will be measured, using digital energy meter, to the best accuracy, and is recorded and monitored on a continuous basis. The parameter would substantiate the smooth operation of the power plant. Necessary standby meters or check meters will also be installed and operate if main meters develop some snag or main meters are not working. All meters will be calibrated once in a year or as per the recommendation of manufacturer, whichever is earlier. Hence, high quality is ensured for all the above parameters.

Gokak power & Energy Ltd, (A Subsidiary of Gokak Textiles Ltd) will identify a suitable senior person who will be responsible for data monitoring, recording, quality and archiving. The identified person in charge will be assisted by a team of experienced personnel in disciplines such as mechanical and electrical with experience in plant operation, measurements and management. The primary responsibilities of the team are to monitor record and report the information on various data items to the person in charge on daily basis, in accordance with the applicable standards. The responsibility of storage and archiving of information in good condition also lies with the designated person in charge. The person in charge will undertake periodic verifications and onsite inspections to ensure the quality of the data collected by the team and initiate steps in case of any abnormal conditions.

The daily reports will be used collectively to prepare a monthly report. The monthly report will be prepared by the designated in-charge. The monthly reports will become a part of the Management Information System (MIS) and will be reviewed by the management during the review meetings.
All the data and reports will be kept at the offices of the mill until 2 years after the end of the crediting period or the last issuance of CERs for the project activity, whichever occurs later.

Monitoring structure

SECTION C. Duration and crediting period

C.1. Duration of project activity

C.1.1. Start date of project activity

In the context of a CDM project activity, the earliest date at which real action for the proposed project activity was taken was on 16th July, 2007 when PO for Erection, Testing Commissioning of Hydro Power Project was released by M/S Gokak Power and Energy Ltd.

C.1.2. Expected operational lifetime of project activity

40 years

C.2. Crediting period of project activity

C.2.1. Type of crediting period

Fixed crediting period

C.2.2. Start date of crediting period

15/02/2014 or effective date of registration, whichever occurs later.
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C.2.3. Length of crediting period

10 years 0 months.

SECTION D. Environmental impacts

D.1. Analysis of environmental impacts

As per the prevailing regulations of the Host Party i.e. India represented by the Ministry of Environment and Forests (MoEF), Govt. of India and also the line ministry for environmental issues in India, Environmental Impact Assessment (EIA) studies need not to be conducted for the projects less than Rs. 1000millions. Since the total cost of the project is only Rs. 145.3 millions, the project activity doesn't call for EIA study.

Also, the notification dated 14th September 2006 of Ministry of Environment & Forests (MoEF) 9, Govt. of India, states that the hydroelectric projects with less than 25 MW need not to get prior environmental clearance (EC) either from State or Central Govt. authorities. However, the project activity is required to get permission from Karnataka State Pollution Control Board for setting up of the project. The project proponents have obtained necessary clearance in this regard. Small-scale run-off hydropower project has a low impact on river flow volumes and all water diverted to the powerhouse is returned to main stream. Compared to thermal and nuclear establishment hazards, small hydropower hazard is almost zero.

Proposed project will not result in resettlement and rehabilitation in project site, as it is not under human habitation area. The scheme does not involve any impounding of water and hence no submergence or rehabilitation activity is needed. The project shall not affect the aquatic life available in this stream, which at present is insignificant.

Soil conservation methods are also taken into account prior to implementation of the project, so the proposed project will not result in damage to soil profile in the construction phase. From the above discussions, it is evident that the proposed project is not likely to have any significant adverse environmental effects during execution or after commissioning.
The project activity does not have any negative impacts on the socio-economic environment of the region. Indeed, there are no displacements of local populations, no disturbances in the local eco-systems, no deforestation etc., involved.

SECTION E. Local stakeholder consultation

E.1. Solicitation of comments from local stakeholders

Before implementing any project, project developers need to identify the stakeholders, prepare necessary documents, approach the identified stakeholders directly and obtain required clearances/approvals from them. If the stakeholders feel that the project is sustainable and socially/environmentally beneficial, after reviewing the relevant documents related to project design and implementation, they will issue clearances/approvals.

The project proponent has invited comments/ suggestions from local stakeholders in connection to the proposed project activity. The stakeholders identified for the project were the usual occupants of the villages around, the local communities, governmental agencies, employees and consultants/advisors, who they assumed would have an interest in the project activity. Their views were welcomed, to understand their opinion on the proposed project activity. For this newspaper advertisements were published in Haaru Kranti on dated 08/10/2008.

A common public hearing meeting was conducted on 10/10/2008 at Social Club, Gokak Falls at 11 am as per the notifications published in the newspaper to inform the local people about the project activity and the related benefits arising out of the project activity.

The minutes of meeting of the stakeholder consultation process were prepared and were duly signed by the attendees.

Identification of Stakeholders:

The project proponent has identified the following stakeholders

- Local population including the employees of Gokak Power & Energy Ltd. (A Subsidiary of Gokak Textiles Ltd.)
- Karnataka State Pollution Control board
- Forest Ecology and Environment Department
- Irrigation Department

The local population around the project area also includes the employees from the company as Gokak Power & Energy Ltd (A subsidiary of Gokak Textiles Ltd) Provides accommodation to its employees near the plant area. A public hearing was organized by the project proponent to formally apprise the local population about the project and to provide them an opportunity to express their view on it. The information about the day and time of the meeting was published in a local newspaper.

The village Panchayats /local elected body of representatives administering the local area are a true representative of the local population in a democracy like India. Hence, Panchayats members were also invited. The company representative explained the need of GHG reduction, about the project, and how it will help in reducing the GHG. The local people expressed their pleasure with the setting up of the project, as it would provide the employment opportunities. They have also shown keen interest in the activities related GHG reduction.

E.2. Summary of comments received

No negative comment is received from any stakeholder, as the project generate clean power. It will also generate job opportunities for the local population. Further, it helps bridging the gap between the demand and supply of electricity and reduces T&D losses for state electricity board.

E.3. Report on consideration of comments received

The queries of the stakeholders were answered to their satisfaction. The project proponents explained the positive impacts of a Hydro Power Project in detail. The doubts over a change in rainfall patterns, groundwater and electricity supply by the project activity were also answered satisfactorily by the project participants. The villagers were happy about the fact that there will be overall development of the local region due to the project activity.

SECTION F Approval and authorization

The host country approval from the Indian DNA for proposed project activity has been accorded on 07/05/2013. The same will be provided to DOE for verification.

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Appendix 1: Contact information of project participants

Organization	Gokak Power & Energy Ltd (A Subsidiary of Gokak Textiles Ltd.)
Street/P.O. Box	Gokak Falls
Building	Gokak, Belgaum
City	
State/Region	Karnataka
Postcode	591308
Country	India
Telephone	+91-8332-226694 225004/225154/226973
Fax	+91-8332-225354
E-mail	kmbhayya@gokakpower.com,
Website	
Contact person	
Title	Vice President
Salutation	Mr
Last name	Bhayya
Middle name	Mohanlal
First name	Kamlaprasad
Department	
Mobile	+91 9449873915
Direct fax	
Direct tel.	+91-8332-226694
Personal e-mail	kmbhayya@gokakpower.com

Appendix 2: Affirmation regarding public funding

No public funding to the project Activity

Appendix 3: Applicability of selected methodology

Methodology applicability is mentioned in the Section B.2.

Appendix 4: Further background information on ex ante calculation of emission reductions

Calculation of Grid emission factor

This project uses fixed ex-ante combined margin grid emission factor for the Southern grid published by the CEA of India, following the approaches and rules defined in "Tool to calculate emission factor for an electricity system (Version 03.0.0) EB 70, Annex 22. For details please refer –

http://www.cea.nic.in/planning/c%20and%20e/Government%20of%20India%20website.htm

1. Baseline Carbon Dioxide Emission Database Version 8.0 – LATEST
2. User Guide – Version 8.0 - LATEST

This corresponds to the baseline database as on October 2013, Version 8.0.

STEP 1. Identification of the relevant electricity systems

For the purposes of the CDM, the delineation of the electricity grid is a key step in the calculation of a grid emission factor. Historically, the Indian power system was divided into five independent regional grids, namely Northern, Eastern, Western, Southern, and North-Eastern. Each grid covered several states. Since August 2006, however, all regional grids except the Southern Grid have been integrated and are operating in synchronous mode, i.e. at same frequency. Consequently, the Northern, Eastern, Western and North-Eastern grids will be treated as a single grid and is being named as NEWNE grid from FY 2007-08 onwards as depicted in the CO2 Baseline Database (as shown in the below table). The Southern grid has also been planned to be synchronously operated with rest of all Indian Grid by early 12th Plan (2012-2017).

NEWNE Grid				Southern Grid
Northern	**Eastern**	**Western**	**North-Eastern**	**Southern**
Chandigarh	Bihar	Chhattisgarh	Arunachal	Andhra Pradesh
Delhi	Jharkhand	Gujarat	Pradesh	**Karnataka**
Haryana	Orissa	Daman & Diu	Assam	Kerala
Himachal	West Bengal	Dadar & Nagar	Manipur	Tamil Nadu
Pradesh	Sikkim	Haveli	Meghalaya	Pondicherry
Jammu &	Andaman-	Madhya	Mizoram	Lakshadweep
Kashmir	Nicobar	Pradesh	Nagaland	
Punjab		Maharashtra	Tripura	
Rajasthan		Goa		
Uttar Pradesh				
Uttarakhand				

The project activity is located in the state of Karnataka which comes under Southern grid and the electricity generated by this project displaces the electricity from the Southern grid. Due to the displacement of electricity, the project activity would have impact on the Southern grid. Thus all the power generation facilities connected to this grid form the boundary for the purpose of baseline estimation. Since the project supplies electricity to the Southern grid, emissions generated due to the electricity generated by the Southern grid as per CM calculations will serve as the baseline for this project.

STEP 2. Choose whether to include off-grid power plants in the project electricity system (optional)

Project participants may choose between the following two options to calculate the operating margin and build margin emission factor:
Option I: Only grid power plants are included in the calculation.
Option II: Both grid power plants and off-grid power plants are included in the calculation.
Only grid power plants are included in the calculation of OM & BM.

STEP 3. Select a method to determine operating margin (OM)

The calculation of the operating margin emission factor ($EF_{grid,OM,y}$) is based on one of the following methods: which are described under step 4 (Refer "Tool to calculate the emission factor for an electricity system", version 03.0.0, EB 70, Annex 22)
(a) Simple OM, or
(b) Simple adjusted OM, or
(c) Dispatch data analysis OM, or
(d) Average OM.
The simple OM method (option a) can only be used if low-cost/must-run resources constitute less than 50% of total grid generation in: 1) average of the five most recent years, or 2) based on long-term averages for hydroelectricity production.
The Share of Low Cost / Must-Run (% of Net Generation) in the generation profile of the different grids in India in the last five years is as follows:

Share of Must-Run (% of Net Generation)[12]

Share of Must-Run (Hydro/Nuclear) (% of Net Generation)						
	2007-08	2008-09	2009-10	2010-11	2011-12	Average
NEWNE	19.0%	17.4%	15.9%	17.6%	19.2%	17.8%
South	27.1%	22.8%	20.6%	21.0%	21.0%	22.5%

As observed in the CEA database, (Version 8, Jan'13) the percentage of total grid generation by low-cost/must-run plants (on the basis of average of five most recent years) for the southern regional grid is only **22.5 %** which is much lesser than 50% of the total generation. Thus, Simple OM method has been used for calculating the emission factor.

The project proponent has chosen the ex ante option for the calculation of the OM with a 3-year generation-weighted average, based on the most recent data available at the time of submission of the CDM-PDD to the DOE for validation, without requirement to monitor and recalculate the emissions factor during the crediting period.

STEP 4. Calculate the operating margin emission factor according to the selected method

The simple OM emission factor is calculated as the generation-weighted average CO_2 emissions per unit net electricity generation (t CO_2 e/MWh) of all generating power plants serving the system, not including low-cost / must-run power plants / units. The Simple OM may be calculated:

Option A: Based on net electricity generation and a CO_2 emission factor of each power unit, or
Option B: Based on the total net electricity generation of all power plants serving the system and fuel types and total fuel consumption of the project electricity system

[12] http://www.cea.nic.in/reports/planning/cdm_co2/cdm_co2.htm

The project proponent is using values for calculating OM that are published in the CEA database for calculating CO_2 emissions (Version 8, Jan'13). These calculations are based on "Tool to Calculate the Emission Factor for an Electricity System", version 03.0.0, EB 70, Annex 22. These correspond with **option A** of the current version of the Tool.

(a) Simple OM

The full generation weighted average for the most recent 3 years i.e. 2009-10, 2010-11, 2011-12 has been considered from the Central Electricity Authority data.

$EF_{grid, OM, y}$ Calculation approach

The $EF_{grid, OM, y}$ for Southern region	t CO_2/MWh
For the year 2009-2010	0.9415
For the year 2010-2011	0.9419
For the year 2011-2012	0.9598
Net Generation in operating Mrgin (Gwh) (2009-10)	1,34,717
Net Generation in operating Mrgin (Gwh) (2010-11)	1,37,387
Net Generation in operating Mrgin (Gwh) (2011-12)	1,51,502
Weighted Average $EF_{grid, OM, y}$	**0.9481**

In this PDD *ex-ante* vintage has been fixed and will not be changed during the crediting period.

Step5: Calculate the build margin emission factor (EF grid, $_{BM,y}$)

In terms of vintage of data, PP has chosen option a) build margin emission factor ex ante based on the most recent information available on units already built for sample group at the time of CDM-PDD submission to the DOE for validation.
Calculations were done by the CEA (database version 8, Jan'13) to determine Emission Factor. CEA adopted build margin calculation based on an approach similar to Option b and c) "for sample group of power units m used to calculate the build margin" of the current Tool to calculate emission factor in the electrical system"- version 03.0.0, EB 70, Annex 22.
Build margin is calculated by the formula:

$$\mathbf{EFgrid_{BM,y} = \Sigma(EG_{m,y} X EF_{EL,m,y}) / \Sigma EG_{m,y}}$$

Where:
$EF_{grid,BM,y}$ = Build margin CO_2 emission factor in year *y* (t CO_2 e/MWh)
$EG_{m,y}$ = Net quantity of electricity generated and delivered to the grid by power unit *m* in year *y* (MWh)
$EF_{EL,m,y}$ = CO_2 emission factor of power unit *m* in year *y* (t CO_2 e/MWh)
m = Power units included in the build margin
y = Most recent historical year for which power generation data is available

BM is calculated ex-ante based on the most recent information available at the time of submission of PDD i.e BM value for the year 2010-11 and is fixed for the entire crediting period as **0.8522.**

EF grid, BM, y = **0.8522** tCO2e/MWh

STEP 6. Calculate the combined margin emissions factor

The emission factor *EF grid,CM,y* of the grid is represented as a combination of the Operating Margin (OM) and the Build Margin (BM).
PP has chosen option a) Weighted Average CM, in calculation of combined Margin emission factor. Considering the emission factors for these two margins as $EF_{OM, y}$ and $EF_{BM, y}$, then the $EF_{grid,CM,y}$ is given by:

$$\mathbf{EF_{grid, CM, y} = W_{OM} * EF_{grid, OM, y} + W_{BM} * EF_{grid, BM, y}}$$

Where:

$EF_{grid, BM, y}$: Build margin CO_2 emission factor in year y (t CO_2 e/MWh)
$EF_{grid, OM, y}$: Operating margin CO_2 emission factor in year y (t CO_2/eMWh)
W_{OM} Weighting of operating margin emissions factor (%)
W_{BM} Weighting of build margin emissions factor (%)

According to the "Tool to calculate the emission factor for an electricity system", version 03.0.0, EB 70, Annex 22., For hydro power projects, the default weights are as follows: wOM = 0.5 and wBM = 0.5

EF grid, CM, y = EF grid, $_{OM, y}$ x 0.5 + EF grid, $_{BM, y}$ x 0.5
= 0.9481 × 0.5 + 0.8522 × 0.5
EF grid, CM, y = 0.9002 t CO_2/MWh

Thus, the CM emissions factor (EFgrid, CM, y) for the project has been calculated to be:
EF grid, CM, y = 0.9002 t CO_2/MWh
Baseline Emission Factor: **0.9002**t CO_2/MWh

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Appendix 5: Further background information on monitoring plan

The monitoring details are mentioned in the section B-7 of the PDD.

Appendix 6: Summary of post registration changes

Not applicable

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History of the document

Version	Date	Nature of revision
04.1	11 April 2012	Editorial revision to change history box by adding EB meeting and annex numbers in the Date column.
04.0	EB 66 13 March 2012	Revision required to ensure consistency with the "Guidelines for completing the project design document form for small-scale CDM project activities" (EB 66, Annex 9).
03	EB 28, Annex 34 15 December 2006	• The Board agreed to revise the CDM project design document for small-scale activities (CDM-SSC-PDD), taking into account CDM-PDD and CDM-NM.
02	EB 20, Annex 14 08 July 2005	• The Board agreed to revise the CDM SSC PDD to reflect guidance and clarifications provided by the Board since version 01 of this document. • As a consequence, the guidelines for completing CDM SSC PDD have been revised accordingly to version 2. The latest version can be found at <http://cdm.unfccc.int/Reference/Documents>.
01	EB 07, Annex 05 21 January 2003	Initial adoption.
Decision Class: Regulatory **Document Type:** Form **Business Function:** Registration		