



**CLEAN DEVELOPMENT MECHANISM
FORM FOR SUBMISSION OF BUNDLED SMALL SCALE PROJECT ACTIVITIES
(SSC-CDM-BUNDLE)**

SECTION A. General description of the Bundle

A.1. Title of the Bundle:

India-FaL-G Brick and Blocks Project No.3

A.2. Version and Date :

Version 02, March 03, 2011

A.3. Description of the Bundle and the subbundles :

The Bundle consists of 42 individual entrepreneurs, operating FaL-G units that have been set up at various locations in the states of Tamil Nadu and Andhra Pradesh, India since Feb 2004. They are identified as Sub-Project Entities (SPEs). Bundle does not have any subbundles.

This Bundle consists of 42 FaL-G plants developed by individual entrepreneurs, that have been set up at various locations in the states of Andhra Pradesh, Tamil Nadu, Orissa and Chhattisgarh since Feb 2004. The start date of the project is the earliest date of establishment among all the 42 FaL-G plants vide Small-scale Industries certificate by Director of Industries for individual units of the project activity.

Each FaL-G plant qualifies as a small scale CDM project as per the definition of small scale CDM projects contained in Appendix B to the simplified modalities and procedures for small scale projects. Each FaL-G plant is a standalone project with total operations right from raw material input upto the finished product. Hence a check on debundling is totally irrelevant as the emission reductions out of all these plants, put together, are well within the cap, thus making the concept of debundling untenable.

In order to reduce the transaction cost, a bundling approach is being followed in compliance with the rules prescribed by the Executive Board for bundling small scale projects.



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A.4. Project participants:

Name of Party involved (*) (host) indicates a host Party)	Private and/or public entity(ies) project participants (*) (as applicable)	Kindly indicate if the Party involved wishes to be considered as project participant (Yes/No)
Government of India (Host)	Eco Carbon Pvt. Ltd. as Project Entity, on behalf of SPEs listed in Annex- 1.	No
Government of Italy acting through the Ministry for the Environment, Land and Sea	International Bank for Reconstruction and Development (IBRD) as the Trustee (the “Trustee”) and managing company of the Community Development Carbon Fund (CDCF)	Yes
The State of the Netherlands acting through the Netherlands’ Ministry of Infrastructure and the Environment(IenM)	International Bank for Reconstruction and Development as Trustee of the Community Development Carbon Fund (CDCF)	Yes
(*) In accordance with the CDM modalities and procedures, at the time of making the CDM-PDD public at the stage of validation, a Party involved may or may not have provided its approval. At the time of requesting registration, the approval by the Party(ies) involved is required.		

Eco Carbon Pvt. Ltd. (ECPL): A private company, which is committed for promoting FaL-G technology as CDM activity on commercial principles. ECPL will provide the technological and operational support to the individual entrepreneurs for implementing the FaL-G plants. ECPL represents the individual entrepreneurs and is responsible for organising the entrepreneurs in order to promote the project activities for carbon transactions.

International Bank for Reconstruction and Development (IBRD): IBRD is the trustee of the CDCF on behalf of the public and private participants. The official contact for the CDM project activity is the International Bank for Reconstruction and Development (IBRD). The contact details of above participants are given in Annex 1.

The Community Development Carbon Fund (CDCF): Trust fund maintained and operated by the World Bank in its capacity as trustee of the CDCF on behalf of the public and private participants. CDCF will purchase the emission reductions generated by the project and supervise the implementation of community benefit program.

The official contact for the CDM project activity is the Community Development Carbon Fund (CDCF) of the World Bank. The contact details of above participants are given in Annex 1.



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SECTION B. Technical description of the Bundle:**B.1. Location of the Bundle:****B.1.1. Host Party(ies):**

India

B.1.2. Region/State/Province etc.:

Bundle consists of FaL-G units from ten districts in the State of Andhra Pradesh, one district each in the states of Tamil Nadu, Orissa and Chhattisgarh as per the details enlisted in Annex 2.

B.1.3. City/Town/Community etc:

The districts in which the project activities implemented are as follows.

States	District	No. of Plants	Aggregate Capacity - m ³ /year
Andhra Pradesh	Rangareddy	1	2,930
	Nalgonda	2	16,000
	Warangal	1	10,000
	Guntur	3	13,500
	Krishna	14	94,500
	West Godavari	3	16,700
	East Godavari	1	2,600
	Visakhapatnam	6	39,800
	Vizianagaram	1	4,500
	Srikakulam	3	17,200
Tamil Nadu	Salem	2	12,000
Orissa	Khorda	1	3,500
Chhattisgarh	Raipur	4	15,700
Total		42	248,930

The capacities of individual plants have been separately shown in Annex 2.

B.1.4. Details of physical location, including information allowing the unique identification of this Bundle:



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As the Bundle consists of 42 SPEs spread over various locations in four states viz., Tamil Nadu, Andhra Pradesh, Orissa and Chattisgarh, the physical location of the Bundle cannot be specified.

FaL-G plants are located in those clusters and geographical areas, which are characterised by easy availability of the key raw materials such as fly ash and also proximity to the brick markets. A typical FaL-G plant is located in rural areas near an urban growth centre where brick demand exists. Each plant requires at least 2000 square meters of land.

The plants included in the project are identified by a unique code/serial number for records and administrative convenience. The code consists of identity of the State, followed by identity of the district, Bundle No. in roman, and Serial Number of the plant in that bundle. For example, the ninth Plant in bundle No. III in the state of Andhra Pradesh in Krishna District is represented by the code: AP/KRIS/III/9. As these plants are mostly in tiny sector, located largely in rural sector without significant land mark, indicative geographical coordinates are given in Annex 2.

B.2. Type(s), category(ies) and technology/(ies)/Measure/(s) of the bundle:

The Bundle is categorised under:

Type III: Other Project Types

Version 03, of AMS-III.Z.: Fuel Switch, process improvement and energy efficiency in brick manufacture dt. June 11, 2010.

By virtue of avoiding sintering process and, in turn, use of coal, FaL-G brick/ block production contributes for emission reductions. Nevertheless machines in FaL-G plant require electricity and/or diesel for their operation. The consumption of such forms of energy (electricity and/or diesel) however is much lower compared to the thermal energy consumed for production of burnt clay bricks. FaL-G technology needs cement and/ or lime as process inputs, which are sources of emissions during their production. This is a project not with fuel switch but with total fuel avoidance. It is not a process improvement but altogether a new process. It is energy efficient by avoidance of total thermal energy.

Clay brick manufacturing involves two key processes: i) producing green bricks (clay bricks before firing are called 'green bricks'), and ii) sintering/firing the green bricks in a kiln. The sintering process requires thermal energy inputs. Production of FaL-G bricks and blocks in contrast, does not involve any thermal energy as the product sets and hardens through hydration chemistry, in the lines of cement. Therefore, almost total thermal energy is saved through the use of FaL-G technology. The machinery and equipments used in a FaL-G plant use electricity and/or diesel. But the amount of such energy is much lower compared to the thermal energy used in production of clay bricks. Therefore, total energy savings from the change in brick production process results in substantial energy savings, primarily contributed by the FaL-G technology that completely avoids the use of coal otherwise used in brick production.

The total quantity of emission reductions achieved by the project is estimated as the difference between the emissions due to production of specific volume (m³) of bricks and blocks produced in the project, after deducting project emissions/ leakages, and the emissions those would have been occurred due to the production of equal volume of clay bricks.

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The net emission reductions for an aggregated and indicative production capacity of 248,930 m³ bricks/year are estimated at 46,728 tons CO₂ per year. Based on improved efficiency and increase in number of shifts the production may go high resulting in further reductions, though net reductions considered would be 60 kt CO₂ only as per Version 03 of AMS-III.Z category.

The Technology

The FaL-G technology, used by SPEs of the Bundle, to produce bricks and blocks, has been invented and patented (No. 198639 dated 13.8.1996) by Dr N Bhanumathidas and N Kalidas, and promoted in the host country by the Institute for Solid Waste Research and Ecological Balance (INSWAREB). The technology works with the strength of fly ash, lime and gypsum chemistry. The slow chemistry of fly ash and lime is maneuvered by tapping ettringite phase to its threshold limits through sufficient input of gypsum. Therefore, FaL-G does not require energy intensive equipments such as heavy duty-press or autoclave, which are otherwise required in case of only fly ash and lime brick production. The FaL-G process completely eliminates the thermal treatment, and does not require combustion of any fossil fuel.

The key ingredients of the FaL-G products are fly ash, lime, and gypsum, which are well-known mineral substitutes. All these materials are available in the form of wastes and byproducts from industrial activities and are available in adequate quantities in the areas, where the project activities are located.

FaL-G technology is developed in two approaches, viz. “FaL-G in lime route” and “FaL-G in OPC route”. The patent specifications on FaL-G cover both the approaches. Though FaL-G technology was primarily developed using lime, OPC was also identified as a source of lime to facilitate pozzolanic reactions in FaL-G system. . These two approaches have significant bearing on technical point of view in the context of using LT and HT fly ashes as explained below.

INSWAREB has classified fly ash into two categories based on the sintering temperatures of coal in thermal plants and boilers. They are LT (low temperature) fly ash and HT (high temperature) fly ash. The research at INSWAREB established that LT fly ash goes well with lime where as HT fly ash goes well with OPC as per 28-day strength as shown below (pp. 28-30 Fly ash for Sustainable Development, the book authored by Dr Bhanumathidas and Kalidas; 2002).

28-day Compressive strength of FaL-G, MPa

Type of ash	Lime route	OPC route
LT Ash	22.8	20.0
HT Ash	22.0	33.8

However in both the fly ashes either of the routes is interchangeable depending on the logistics of raw material availability and economics. This aspect allowed flexibility in adoption of the technology.

The concept of LT and HT ashes and the related work is the outcome of research during FaL-G development and thus is of proprietary nature. In this background data from INSWAREB labs has authenticity and is considered as third party report.



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Byproduct lime is available at almost 1/3rd of the mineral lime cost. Otherwise, it is economical to use Ordinary Portland cement (OPC) over mineral lime and, hence, OPC is preferred in areas where byproduct lime is scarce or not available due to increased FaL-G activity. In view of quality and logistical issues in procuring lime, many entrepreneurs adopt FaL-G in OPC route and some are using both lime and cement. Notwithstanding the choice of lime and/or OPC, the technological flexibilities in FaL-G facilitate the use of blended cements such as Portland Pozzolan Cement (PPC) (fly ash based) also, still maintaining the ultimate quality of the product. In another dimension, FaL-G technology established the use of ground granulated blast furnace slag in association with corresponding complementary reactive-additives to supplement the use of cement. Thus the recipes are tailor-made keeping in view of the quality requirements of the end product.

The following table gives the raw material inputs per cubic meter, for typical recipes, where the density of FaL-G brick/block is 2,000 kg / m³.

Ingredients	Lime route		Cement route	
	%	kg	%	kg
Fly ash	15	300	15.2	304
Lime [as Ca(OH) ₂]	7.5	150	--	--
Cement	--	--	4.0	80
Gypsum	2.5	50	0.8	16
Filler (aggregate)	75	1500	80	1600
TOTAL	100	2000	100	2000

B.3 Estimated amount of emission reductions over the chosen crediting period:

The project is expected to achieve GHG emission reductions of approximately 467,280 tonnes of CO₂ equivalent in 10 years from operation of 42 FaL-G plants at different locations.

YEARS	Annual Estimation of Emission Reductions (tonnes CO ₂ eq.)
01/11/2011-31/10/2012	46,728
01/11/2012-31/10/2013	46,728
01/11/2013-31/10/2014	46,728
01/11/2014-31/10/2015	46,728
01/11/2015-31/10/2016	46,728
01/11/2016-31/10/2017	46,728
01/11/2017-31/10/2018	46,728
01/11/2018-31/10/2019	46,728
01/11/2019-31/11/2020	46,728
01/11/2020-31/10/2021	46,728
Total estimated reductions (tonnes CO ₂ eq.)	467,280
Total number of crediting years	10
Annual average over the crediting period of estimated reductions (tonnes CO ₂ eq.)	46,728

SECTION C. Duration of the project activity / Crediting period:



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C.1. Duration of the Bundle**C.1.1. Starting date of the Bundle:**

01/02/2004

C.2. Choice of crediting period and related information:**C.2.1. Renewable crediting period:**

N.A

C.2.1.1. Starting date of the first crediting period:

N.A

B.2.1.2. Length of the first crediting period:

N.A

C.2.2. Fixed crediting period:**C.2.2.1. Starting date:**

01/11/2011

C.2.2.2. Length:

10 years

SECTION D. Application of a monitoring methodology:**Data and parameters monitored:**

Data and parameters monitored:	
Data / Parameter:	Production-$P_{PJ,y}$
Data unit:	m ³ bricks/ blocks
Description:	SPE maintains the actual quantities of production in number on daily basis, based on each size of brick/block, which is duly converted to volume (m ³) to facilitate computations.
Source of data to be used:	Stock registers of SPE.
Value of data	248,930 m ³ ; used in ex-ante calculations



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Description of measurement methods and procedures to be applied:	SPEs record the production of bricks/ blocks on daily basis. These are made available to PE once in a month.
QA/QC procedures to be applied:	Upon receipt of the monthly data on brick/ block production and fuel use (electricity and or /diesel) from the plants, PE will review the data. The personnel of PE will make periodical visits to SPEs' plants to check the diligence of record keeping and the accuracy for ultimate diligence of emission computations.
Any comment:	None

Data / Parameter:	Electricity-EC_{PJ,j,y}
Data unit:	kWh
Description:	The electricity consumption is monitored continuously by the Electricity Meter and recorded by the Service Provider (State Electricity Department) monthly or bimonthly based on which the Electricity bills are provided..
Source of data to be used:	Electricity bills provided by the service provider (state electricity department).
Value of data	300,552 kWh; used in ex-ante calculations
Description of measurement methods and procedures to be applied:	SPEs submit to PE the electricity bill as provided by the Service Provider. The information is verified and tallied with the records of SPE by the personnel of ECPL periodically. For this purpose ECPL personnel are imparted with in-house training.
QA/QC procedures to be applied:	Refer to Section B 6.1
Any comment:	NA

Data / Parameter:	Diesel-FC_v
Data unit:	Litre
Description:	Daily consumption of diesel would be provided by SPEs to PE on monthly basis.
Source of data to be used:	Stock register.
Value of data	0 litres; used in ex-ante calculations
Description of measurement methods and procedures to be applied:	SPEs record diesel consumption on daily basis and send the details to PE on monthly basis.
QA/QC procedures to be applied:	All the information is verified and tallied with the records of SPE by the personnel of ECPL periodically. For this purpose in-house training is imparted to ECPL personnel. Consumption is cross checked with the purchase bills.



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Any comment:	NA
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Data / Parameter:	Cement-Q_{OPC}
Data unit:	Tons
Description:	Purchase details are provided by the SPEs through monthly statement.
Source of data to be used:	Purchase bills of cement.
Value of data	19,914.40 tons; used in ex-ante calculations
Description of measurement methods and procedures to be applied:	Quantities of cement as per purchase bills would be taken for computation of leakages.
QA/QC procedures to be applied:	Upon receipt of the monthly data of purchase bills, the personnel of PE will make periodical visits to SPEs' plants to check the diligence of record keeping.
Any comment:	The leakage emissions for using Cement is derived based on the default values of national average.

Data / Parameter:	Mineral Lime-Q_{ML}
Data unit:	Tons
Description:	Purchase details are provided by the SPEs through monthly statement.
Source of data to be used:	Purchase bills of lime
Value of data	0 tons; used in ex-ante calculations
Description of measurement methods and procedures to be applied:	Purchase bills for mineral lime would be taken for computation of leakages.
QA/QC procedures to be applied:	All the information is verified and tallied with the records of SPE by the personnel of ECPL periodically. For this purpose in-house training is imparted to ECPL personnel.
Any comment:	The object of monitoring lime purchases is to compute the leakage emissions. Purchase bills may not be available when byproduct lime is procured. In such case delivery challans would be accepted for computing the quantity of procurement. The leakage is taken into account only when lime from mineral source is procured. In the case of by product lime, the data is recorded, but no leakages are accounted for as the same would not have any impact.

Data / Parameter:	Performance of project brick/block in terms of Compressive Strength once in six months
Data unit:	MPa
Description:	The brick/ block is tested in a Compressive strength Testing Machine (CTM) in any of the laboratories of polytechnics, engineering colleges, building centers, national laboratories etc., and the test certificates are provided by the laboratory.
Source of data to be	



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used:	Test Certificate as provided by the testing laboratories
Value of data	NA
Description of measurement methods and procedures to be applied:	The test procedure is followed as per the procedure given in PDD
QA/QC procedures to be applied:	Calibration of CTM for strength test is taken care by respective laboratories and outside the project boundary.
Any comment:	NA

Monitoring Plan

Day to day data wherever applicable will be recorded by the sub-project entity who sends monthly statements to project entity. These statements are reviewed for the diligence of data, which are then electronically archived for computation of emission reductions. All such archived data would be stored until two years after the end of the crediting period.

In order to ensure due diligence, the PE conducts periodical inspection of units randomly at any given time in a year. For this purpose the PE deploys monitoring personnel who visit the SPEs and inspect their records and tally with their monthly statements. Errors in data, if any, would be corrected at all points of archiving the data. . The monitoring personnel would duly attest the records as a mark of inspection. The PE would randomly check the visits of monitoring personnel in order to ensure due compliance. Management structure for monitoring has been given in Annex 4.

Various templates are made to record the data to be monitored. The monitoring personnel of PE would be provided with such templates. As the steps involved in monitoring are simple, in-house training is imparted in recording the data and to translate the same into the computation of ERs.

Based on the monitoring requirements of AMS- III.Z., following records would be verified by Inspectors.

Production records:

- Stock register showing daily production

Raw materials inwards:

- Inward stock registers for fly ash, cement and/ or lime.
- Delivery Challans of thermal plants/boilers/Transporters for fly ash.
- Purchase bills of cement and lime
- Delivery Challans for byproduct lime in case of non-availability of purchase bills.

Diesel and/or Power Consumption data

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The consumption of diesel is to be recorded on daily basis, and of power on monthly basis. In the case of diesel, the purchase bills would be verified for cross checking the consumption. In case of power, the meter reading and consumption as provided on the state electricity bill would be taken as record. .

The monitoring personnel keep inspecting the accredited units from time to time through checks and help the SPEs in optimum upkeep of the records in case any deviations are observed. The SPEs, who disregard the advice of monitoring personnel and prove continuously complacent in maintaining the stipulated records, would be dropped from the bundle and would not be entitled to receive carbon credits.

Performance criteria by testing Compressive Strength

The methodology requires making available the test certificates on the strength performance of bricks tested at six-month interval. In the context of testing of bricks/blocks, the SSC WG, at its 22nd meeting clarified that the testing can be undertaken based on the national/regional standards or guidelines applicable to the type of project activity bricks. Testing can also be undertaken as per the procedures provided by the technology provider as long as the testing methods can be substantiated with reference to peer reviewed literature i.e. relevant international journal publications, publications of national/international building research centres etc. As long as the testing procedures in the guidelines/standards are met, the testing itself can be undertaken in polytechnics, engineering colleges, building centers, national laboratories etc.

Accordingly the test procedure as given in PDD shall be adopted and the bricks be tested for their compressive strength at six month interval.

The only code applicable for fly ash bricks in IS: 12894. However, this test procedure has erratically asked for strength test in the lines of tests applicable for clay bricks due to the nomenclature of bricks. As bricks are by and large sold in the market based on physical appearance, with out relying upon codes, there was no concern to challenge the code nor to propose amendment. In this background based on the recommendations of SSC WG at its 22nd meeting, INSWAREB, as the technology provider, has made available a test procedure considering the hydration chemistry, as applicable to that of cementitious products. Based on the above, the test certificates on the strength performance of bricks tested at six-month interval would be made available.

**Annex 1****CONTACT INFORMATION OF PARTICIPANTS IN THE PROJECT ACTIVITY**

Organization:	Eco Carbon Pvt. Ltd.	
Street/P.O.Box:	I Floor, 32-10-55, Shri Venkateswara Colony, Sheila Nagar	
Building:	INSWAREB Laboratory Building	
City:	Visakhapatnam	
State/Region:	Andhra Pradesh	
Postfix/ZIP:	530012	
Country:	India	
Telephone:	++91-891-2516411	
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E-Mail:	info@co2credits.biz	
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Represented by:		
Title:	Mg. Director	Executive Director
Salutation:	Dr	Mr
Last Name:	Bhanumathidas	Kalidas
Middle Name:		
First Name:	Nateri	Nateri
Department:	Research & Development.	Business Development
Mobile:	++91-98483-69930	++91-98481-91453
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Organization:	International Bank for Reconstruction and Development as Trustee of the Community Development Carbon Fund (CDCF)
Street/P.O.Box:	1818 H street NW
Building:	MC
City:	Washington
State/Region:	DC
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Country:	USA
Telephone:	1202 458-1873
FAX:	1202 522 7432
E-Mail:	IBRD-carbonfinance@worldbank.org
URL:	www.carbonfinance.org
Represented by:	--
Title:	Manager, Carbon Finance
Salutation:	Mr
Last Name:	Chassard
Middle Name:	--
First Name:	Joelle
Department:	ENVCF
Mobile:	--
Direct FAX:	--
Direct tel:	--
Personal E-Mail:	--



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Organization:	Government of Italy acting through the Ministry for the Environment, Land and Sea
Street/P.O.Box:	Via C. Colombo, 4400147
Building:	--
City:	Roma
State/Region:	--
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URL:	--
Represented by:	--
Title:	--
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Personal E-Mail:	--



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Organization:	The State of the Netherlands acting through the Netherlands Ministry of Infrastructure and the Environment(lenM)
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City:	The Hague
State/Region:	
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E-Mail:	cdm.dna@minvrom.nl
URL:	---
Represented by:	---
Title:	---
Salutation:	Ms.
Last Name:	Gerards
Middle Name:	---
First Name:	Marisa
Department:	---
Mobile:	---
Direct FAX:	0031-70-339.1306
Direct tel:	0031-70-339.5199
Personal E-Mail:	--



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Annex – 2: Details of SPEs together with their geographical coordinates and output

Name & Address of the MIP	Name & relation of Authorized Signatory	Geographical Co-ordinates, deg		SPE ID. No.	Output /yr in m ³
		North	East		
Andhra Pradesh State					
Ranga Reddy Dist.					
Sri Venkateswara Fly Ash Products S. No. 612 (Pedda Amber pet) Laxmareddy Palem(V) Hayathnagar Mandal, Ranga Reddy Dist.	Major D. Bhushan Rao Proprietor 98485 92330	17.32	78.64	AP/RNG/III/1	2,930
Nalgonda Dist.					
Chandra Fly Ash Bricks S. No. 11, Mahadev Pur (V) – 508 126 Bibinagar Mandal, Nalgonda Dist.	Ms. Y.Sita Mahalakshmi Proprietrix 98496 86666	17.48	78.83	AP/NGD/III/2	6,000
Sri Lakshmi Fly ash Brick Industry Ramapuram (V) Mellacheruvu Mandalam, Nalgonda Dist-508 246	Mr.Mekala Guru Prasad Proprietor 98481 87567	16.92	79.98	AP/NGD/III/3	10,000
Warangal Dist.					
Sri Hiranmai Bricks H.No 2-39/2, Kummarigudem Road, Madikonda Warangal Dist.	Mr. Pramod Kumar Mg. Partner 98490 30906	17.97	79.58	AP/WRG/III/4	10,000
Guntur Dist.					
Sri Lakshmi Venkateswara FaL-G Brick Industries D No: 446-2,Nelapadu (P)-522 201 Tenali (Mandal), Guntur Dist.	Mr. A Venkateswara Rao Mg. Partner 08644 – 651331 94402 63589	16.25	80.63	AP/GTR/III/5	5,000
Sri Durga Fly ash Brick Industry Survey No .70/IB, G.T Road Opp. Anjaneyalu Tractor Shed, Near Selam Narayana Rice mill Mangalagiri – 522 503, Guntur Dist.	Mr. Ch.Durga Venkata Rama Rao Proprietor 94414 52524 08645-234735	16.40	80.57	AP/GTR/III/6	4,500
Sri Venkata Triveni Fly Ash Brick Industry 11-277, S.No 777/4. Near Janakamma Temple Yerrabalem (P) Mangalagiri (M) Guntur Dist.	Mr. B. Srinivasa Rao Proprietor 94402 57228 08645-232808	16.43	80.55	AP/GTR/III/7	4,000
Sri Sai Raghava Fly Ash Bricks Industries D.No 14-448, Raju Peta, Tiruvuru (P), Krishna Dist.	Mr. E.Srinivasa Reddy Manager 98858 87707	17.10	80.62	AP/KRIS/III/8	4,000
Sri Sai Bhargava Fly Ash Bricks Industries Patapadu (Post)- 521 212 Vijaywada (Rural), Krishna Dist.	Ms. E Jyothi Proprietrix 98858 87707	16.27	80.65	AP/KRIS/III/9	4,000
Sri Sai Siva Brick Products RS No. 674/4, NH-9, New Bypass Road Nandigama, Krishna Dist	Mr. R.Ramesh 99632 70539	16.75	80.27	AP/KRIS/III/10	4,500
Sri Sai Tulasi Brick Products RS No. 278/3, NH-9, Bypass Road Kanchikacherla (V)521 180 Krishna Dist	Mr. Y.Sambasiva Rao Manager 99083 31275	16.68	80.35	AP/KRIS/III/11	4,500
Sri Venkateswara Fly ash Products. R.S No 44/1: Kachavaram (V) Ibrahimpattanam (Mandal),, Krishna Dist	Mr. D.Srinivasa Rao Partner 98481 06236/ 98497 92032	16.60	80.47	AP/KRIS/III/12	8,000



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Name & Address of the MIP	Name & relation of Authorized Signatory	Geographical Co-ordinates, deg		SPE ID. No.	Output/yr in m ³
		North	East		
Andhra Pradesh State					
Krishna Dist.					
Sri Sai Baba Fly ash Products R. S. No. 115/1A, NH-9 Road, Ibrahimpattam (V) Krishna Dist	Mr. K. Krishna Kishore Partner 98480 47659	16.60	80.47	AP/KRIS/III/13	4,500
Gayatri Brick Products RS No. 112/4A&5, S.M. Pet X-Road, Jaggiah Pet - 521 175, Krishna Dist	Mr. D. Srinivasa Rao Manager 98661 23183/ 08654- 226301	16.88	80.10	AP/KRIS/III/14	7,500
Sai Build Products 3-10, Kodalivari Street Enikepadu - 521 108, Vijayawada Rural (M) Krishna Dist.	Mr. K.V. Subba Rao Manager 93929 41458	16.52	80.70	AP/KRIS/III/15	4,500
Perfect Concrete Products (P) Ltd S. No. 307/2, Paritala (V) Kanchikacharla (M), Krishna Dist.	Mr.V. Mahidhar Mg. Director 94408 01867	16.63	80.43	AP/KRIS/III/16	15,000
Sri Venkata Sai Fly ash Products R.S.No.779/2, NH-9 Road Paritala (V) Kanchikacherla (M), Krishna Dist.	Mr.K.Krishna Kishore Manager 98480 47659	16.63	80.42	AP/KRIS/III/17	4,500
Sri Sai Fly ash Products R.S.No.777, NH.No.9 Road, Paritala (V), Beside Uma Holyday Inns Kanchikacherla (M), Krishna Dist.	Mr.K.Krishna Kishore Manager 98480 47659	16.63	80.42	AP/KRIS/III/18	10,000
Sri Venkata Ramana Fly ash Products R.S.No.780, NH-9 Road, Paritala (V) Kanchikacherla (M), Krishna Dist.	Mr.K.Krishna Kishore Manager 98480 47659	16.63	80.42	AP/KRIS/III/19	9,000
Sri Sai Krishna Fly ash Products R.S.No.779/2, NH-9 Road, Paritala (V) Kanchikacherla (M), Krishna Dist	Mr.K.Krishna Kishore Manager 98480 47659	16.63	80.42	AP/KRIS/III/20	4,500
Suneetha Fly ash Products R.S.No.777, NH-9 Road, Paritala (V) Beside Uma Holyday Inns Kanchikacherla (M), Krishna Dist.	Mr.K.Krishna Kishore Manager 98480 47659	16.63	80.42	AP/KRIS/III/21	10,000
West Godavari dist.					
Sri Vasavi Fly Ash Concrete Pavers Canal Road, Ramachandra Rao Peta, Penugonda-534 320; WG Dist.	Mr. S.Peddi Reddy Manager 9440385229	16.65	81.73	AP/WG/III/22	9,500
Sri Kanaka Durga Hydraulic Fal-G Brick Industry, Opp: Kakatiya Kalayana Mandapam, Bypass Road Chivatam,(Tanuku), WG dist.	Mr. S. Kanaka Durga Rao Manager 92474 98789 08819-224139	16.75	81.68	AP/WG/III/23	4,500
Sri Kanaka Durga FaL-G & Cement Works Plot No.A-3 Industrial Estate Tetali (Via) Tanuku. WG Dist.	Mr. S. Kanaka Durga Rao Manager 94402 35955	16.75	81.67	AP/WG/III/24	2,700



CDM-SSC-BUNDLE

Name & Address of the MIP	Name & relation of Authorized Signatory	Geographical Co-ordinates, deg		SPE ID. No.	Output/yr in m ³
Andhra Pradesh State		North	East		
East Godavari Dist.					
Subha FaL-G Brick Industry D.No 1-215/C, Yanam Road, Uppalanka Karapa Mandalam, EG Dist.	Mr. T. Ramakrishna Reddy Manager 98486 25389	16.90	82.23	AP/EG/III/25	2,600
Visakhapatnam Dist.					
Simhadri FaL-G Products, NH-5, Salapuvanipalem, Parvada Mandal, Visakhapatnam Dist.	Ms. A. Devika Rani Proprietrix 98661 88290	17.68	83.07	AP/VSP/III/26	5,400
Neela Krishna FaL-G Center, Plot No.104, IDA, Paravada. Visakhapatnam Dist.	Visakhapatnam Dist. Proprietrix 93931 01098	17.63	83.08	AP/VSP/III/27	5,000
Mayuri Brick Industries Dakammari village, Tagarapuvalasa(P) Bheemunipatnam Mandal Visakhapatnam Dist	Mr. K. Sambasiva Rao Proprietor 94401 94499	18.00	83.40	AP/VSP/III/28	5,400
Visakha FaL-G Bricks S. No. 305, Kunchangi (V) 530.132 Anakapalli (M) Visakhapatnam dist.	Mr. V. Suresh Proprietor 98499 43377	17.67	82.92	AP/VSP/III/29	15,000
Aditya FaL-G Products Rebaka (V), Anakapalli (M)Visakhapatnam Dist.	Mr. V. Suresh Proprietor 98499 43377	17.73	83.05	AP/VSP/III/30	4,500
Prudvi Buildmate Koondram (V), Anakapalli(M) Visakhapatnam Dist.	Mr. Y.V. Rao Mg. Partner 98661 93624	17.65	82.92	AP/VSP/III/31	4,500
Vizianagaram Dist.					
Mayuri Industries, Shed No.F-2, A.P. Industrial Estate, V.T. Agraharam, Vizianagaram-535 004, Vizianagaram Dist.	Mr. K. Sambasiva Rao Proprietor 94401 94499	18.10	83.38	AP/VZM/III/32	4,500
SRIKAKULAM DIST.					
Sree Satya Enterprises R.S. No 109/Part Chilakapalem (V)-532 403 Etcherla (M), Srikakulam Dist	Mr. R.R.. Satyanarayana Raju Proprietor 98495 23335	18.27	83.80	AP/SKL/III/33	4,500
M.K.Brick Industries, NH-5 Road, Santhoshipuram (V), Devipuram Grama Panchayati Nandigam Mandal, Srikakulam Dist.	Ms. M. Meena Kumari, Proprietrix 92904 42117	18.73	84.40	AP/SKL/III/34	2,700
Chandanam Fly ash Industry Abotulapeta (V) Anandapuram Panchayat G. Sigadam - 532 168, Srikakulam Dist	Mr. P. Ram Mohan Rao Manager 98851 16426	18.35	83.77	AP/SKL/III/35	10,000

Name & Address of the MIP	Name & relation of Authorized	Geographical Co-ordinates,	SPE ID. No.	Output/yr in m ³
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CDM-SSC-BUNDLE

	Signatory	deg			
		North	East		
Tamil Nadu State					
Salem dist.					
Hari Eco Building Materials SF No. 108/3, Thalaivar Thottam D.Perumapalayam Main Road, Pallipatty Valapady Taluk Salem - 636 122, Salem Dist.	Mr. K. M. Siva Kumar Proprietor 98943 51024	11.70	78.23	TN/SLM/III/36	6,000
Mass Bricks SF No. 7/1, Thottiyar Kadu Santhiyur Attayampatti (P), Mallur (Via)Salem Taluk Salem Dist - 636 203	Ms. A. Shanthi Proprietrix 94434 82123	11.53	78.05	TN/SLM/III/37	6,000
Orissa State					
Khurda Dist					
Biswakarma Bricks & Blocks Plot No: 329/639/764 At Alkar, P.O-Janla - 752 054, Khurda Dist, Orissa.	Mr. N.Gangadhar Reddy, Proprietor 94371-23235	22.20	85.70	ORS/KRD/III/38	3500
Chhattisgarh State					
Raipur Dist.					
A-1 Bricks 28-Part ,Phase II, Industrial Growth Centre, Siltara-Raipur (C.G)	Ms Abha Pandey 94242- 02637	21.30	81.63	CG/RAIP/III/39	4,500
Bansal Retreaders 18, Industrial area, Korba-495686, Raipur Dist.	Mr. Radhashyam Bansal 94252-24313	22.35	82.73	CG/RAIP/III/40	5,000
Alok Bricks Chhuiya(V), Baloda Bazar Raipur - 493 332	Mr. Amit Franklin 98267 42638	21.65	82.15	CG/RAIP/III/41	3,100
Umiya Industries Limahi Village, Baloda Bazar Raipur Dist	Mr. Vikram Patel 98264 21061	21.65	82.15	CG/RAIP/III/42	3,100