CLEAN DEVELOPMENT MECHANISM
SMALL-SCALE PROGRAMME OF ACTIVITIES DESIGN DOCUMENT FORM
(CDM-SSC-PoA-DD) Version 01

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NOTE:

(i) This form is for the submission of a CDM PoA whose CPAs apply a small scale approved methodology.

(ii) At the time of requesting registration this form must be accompanied by a CDM-SSC-CPA-DD form that has been specified for the proposed PoA, as well as by one completed CDM-SSC-CPA-DD (using a real case).

ECTION A. General description of small-scale programme of activities (PoA)

A.1 Title of the small-scale programme of activities (PoA):

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Electrification project using biomass in Lao People's Democratic Republic

A.2. Description of the small-scale programme of activities (PoA):

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1. General operating and implementing framework of PoA

Lao People's Democratic Republic (Laos) is currently classed as a least developed country, and the government has made it a top priority to “break away from least developed country status by 2020” in its efforts to eradicate poverty.

To contribute to the government target of eradicating poverty, the Ministry of Energy and Mining, which is in charge of regional electrification, currently aims to increase the electrification rate from 47% to 70% by 2010 and 90% by 2020.

The electric power sector in Laos occupies an important position in the national economy through contributing to the mitigation of poverty based on provision of basic services and acquiring precious foreign currency via export of electricity to Thailand. However, out of hydropower potential of 18,000 MW throughout the country, only 623 MW or 3.5% is used and, even after the Namten 2 Hydropower Station (1,000 MW) currently under construction is taken into account, the hydropower sector remains largely undeveloped. Related infrastructure such as the power transmission and distribution network, etc. is also under-developed. As a result, the domestic electrification rate is just 47%, placing Laos at the lowest level among ASEAN countries. The electrification rate is especially low in rural areas.

The power grid in Laos is currently composed of four independent systems, however, apart from the system that serves the capital region of Vientiane, the remaining three systems do not have adequate power sources to satisfy demand. It would take massive amounts of time and money to build transmission lines to connect each independent power system; moreover, in the currently non-electrified areas, due to the lack of understanding and technology concerning electricity, there are numerous obstacles to realizing immediate connections to the existing systems.

Since Laos comprises a lot of small communities dispersed over a wide area, it is difficult to promote electrification through extending the existing electricity infrastructure. Accordingly, it is important to promote off-grid electrification using diesel generators. For this reason, the Ministry of Energy and Mining wants to promote local electrification through utilizing locally available biomass as a new electricity resource, and it views this as the Programme of Activities (PoA).

This Programme of Activities will be operated by the Ministry of Energy and Mining based on the Master Plan in order to achieve part of the said plan, and individual projects will be followed up by local organizations.

Moreover, when implementing individual projects under this Programme of Activities, since the cooperation of citizens will be essential, it is planned for the Ministry of Energy and Mining to take the initiative in implementing dissemination and promotion activities (capacity building activities) in each area; in particular it is planned to give priority to new employment on jatropha farms,

methods for collecting agricultural waste, biogas plant operation technology and biodiesel production technology.

2. Policy/measure or stated goal of the PoA

This Programme of Activities aims to achieve electrification in 30% of non-electrified areas within the electrification plan of Laos.

3. Confirmation that the proposed PoA is a voluntary action by the coordinating/managing entity.

The Ministry of Energy and Mining will be the manager of the Programme of Activities, which will be put into effect as part of the ministry's policy. In other words, the Programme of Activities will be implemented with the aim of effecting part of the national electrification plan, which is stagnating due to financial and technical problems.

A.3. Coordinating/managing entity and participants of SSC-POA:

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1. Coordinating or managing entity of the PoA as the entity which communicates with the Board

The Ministry of Energy and Mining will be the manager of the Programme of Activities.

2. Project participants being registered in relation to the PoA. Project participants may or may not be involved in one of the CPAs related to the PoA.

- Laos Ministry of Energy and Mining
- Laos Electric Power Corporation and regional electricity supply organizations
- Xayabury Prefecture
- Na Ven Village
- Chugoku Electric Power Co., Ltd.
- Shimizu Corporation

A.4. Technical description of the small-scale programme of activities:

A.4.1. Location of the programme of activities:

A.4.1.1. Host Party(ies):

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Lao People's Democratic Republic

A.4.1.2. Physical/ Geographical boundary:

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The Programme of Activities targets the whole of Lao People's Democratic Republic.
For the immediate future, it is planned to operate the Programme of Activities in planning areas of the three under-developed electricity systems as well as off-grid areas.

A.4.2. Description of a typical small-scale CDM programme activity (CPA):

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The CPA entails power generation using biomass energy (bio-diesel or biogas) and the supply of electricity to households in non-electrified communities . It does not entail connection to the existing power grid. Since the equipment to be newly introduced comprises only new power generating equipment with small capacity (15 MW or less), the CPA satisfies the applicable conditions (Technology / measures) for AMS-I.A.

A.4.2.1. Technology or measures to be employed by the SSC-CPA:

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- Technology for producing biogas from agricultural waste and technology for collecting the said gas
- Jatropha, etc. cultivation technology
- Technology for producing bio-diesel from jatropha and technology for collecting it
- Diesel engine operating technology based on mixed combustion of biogas, bio-diesel and light oil
- Generator utilization and maintenance technology

A.4.2.2. Eligibility criteria for inclusion of a SSC-CPA in the PoA:

>>

The project scope of this Programme of Activities shall cover new power generation by a diesel engine operated on the mixed combustion of jatropha oil, gasified biomass and light oil.

The equipment capacity is no more than 15MW so the activity satisfies the applicable conditions (Technology / measures) for AMS-I.A.

A.4.3. Description of how the anthropogenic emissions of GHG by sources are reduced by a SSC-CPA below those that would have occurred in the absence of the registered PoA (assessment and demonstration of additionality):

>>

The Programme of Activities will be implemented as a policy of the Ministry of Energy and Mining and will be an autonomous activity.

If this Programme of Activities does not take place, not only electrification based on biomass but also electrification based on conventional fuel (light oil) will fail to advance according to plan. In other words, even though a plan of electrification has been compiled, the electrification rate currently stands at 47%. This is because the electrification plan is only a plan that does not possess any legal backing or binding power. Moreover, there is no policy entailing the utilization of biomass, and if this POA didn't exist, the electrification of rural villages based on biomass would not be feasible due to the current technical level and cost.

A.4.4. Operational, management and monitoring plan for the programme of activities (PoA):

A.4.4.1. Operational and management plan:

>>

1. A record keeping system for each CPA under the PoA,

   The Ministry of Energy and Mining will be the manager of the Programme of Activities, and all information associated with the CPA will be consolidated into the Ministry of Energy and Mining once per year.
   Records will be submitted for centralized consolidation in the formats designated by the manager, and they will be submitted to the DNA, i.e. the Water Resource and Environment Agency (WREA) .

2. A system/procedure to avoid double accounting e.g. to avoid the case of including a new CPA that has been already registered either as a CDM project activity or as a CPA of another PoA,

   Since this Programme of Activities targets only areas within Laos, and the Ministry of Energy and Mining is involved with the approval of CDM projects in Laos, it will be possible to avoid double accounting.

3. The SSC-CPA included in the PoA is not a de-bundled component of another CDM programme activity (CPA) or CDM project activity.

   In consideration of the actual state of electrification in non-electrified villages in Laos, budget constraints and so on dictate that it is not possible to implement a large-scale project within a project for electrification based on biomass.
   Moreover, concerning division based on the de-bundling of CDM projects, the DNA will conduct checks at the time of approval.

4. The provisions to ensure that those operating the CPA are aware of and have agreed that their activity is being subscribed to the PoA;

   Types of fuel in this Programme of Activities are limited to jatropha oil and gasified biomass, however, it shall be possible to add other village electrification projects based on biomass to this Programme of Activities.

A.4.4.2. Monitoring plan:

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1. Description of the proposed statistically sound sampling method/procedure to be used by DOEs for verification of the amount of reductions of anthropogenic emissions by sources or removals by sinks of greenhouse gases achieved by CPAs under the PoA.

2. In case the coordinating/managing entity opts for a verification method that does not use sampling

but verifies each CPA (whether in groups or not, with different or identical verification periods) a transparent system is to be defined and described that ensures that no double accounting occurs and that the status of verification can be determined anytime for each CPA;

In the CPAs based on this PoA, individual monitoring plans will be compiled and verification of greenhouse gas reductions will be carried out based on figures concerning generated amount of electricity, project power consumption, biomass fuel consumption, biomass raw materials consumption and so on. The DOE will be able to use these records.
Moreover, the manager will check the verified numerical information once per year and make sure that there is no double-counting.

A.4.5. Public funding of the programme of activities (PoA):

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The manager of this Programme of Activities is the Laos Ministry of Energy and Mining, and public funds in Laos will be introduced regarding the management implemented by the manager.

SECTION B. Duration of the programme of activities (PoA)

B.1. Starting date of the programme of activities (PoA):

>>

01/01/2009

B.2. Length of the programme of activities (PoA):

>>

15 years

SECTION C. Environmental Analysis

C.1. Please indicate the level at which environmental analysis as per requirements of the CDM modalities and procedures is undertaken. Justify the choice of level at which the environmental analysis is undertaken:

1. Environmental Analysis is done at PoA level ☐
2. Environmental Analysis is done at SSC-CPA level レ☐

C.2. Documentation on the analysis of the environmental impacts, including transboundary impacts:

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Concerning documentation on environmental impact assessment in Laos, the Environmental Protection Law that was established in 1999 is the basic premise for everything. Based on this, the Water Resource and Environment Agency (DNA) decides the procedures for environmental impact assessment as well as the Regulation on Environment Assessment in LAO PDR . According to this, it is necessary to consider environmental impacts in both the project site and surrounding areas, and to

conduct examination that crosses over the boundary in chronological order from the project planning stage to construction, operation and closure.
In the project too, it is necessary to state not only the project outline but also projected social and environmental impacts based on the above viewpoints in the Project Description, and to present this to the related supervisory agencies.

C.3. Please state whether in accordance with the host Party laws/regulations, an environmental impact assessment is required for a typical CPA, included in the programme of activities (PoA),:

>>

The program activity here is limited to small-scale power generation, and individual projects will have only a minimal impact on local environments.
According to the environmental impact assessment system in Laos, a Project Description that states not only the project outline but also projected social and environmental impacts in the local area must be prepared in all projects. Regarding small-scale power generation, when output is less than 100 kW, as a rule it is only necessary to submit the Project Description while any further environmental impact assessment is deemed unnecessary. Also, when generated output is between 100~199 kW, no further environmental impact assessment is required providing that there is no water reservoir or intake, no major destruction or revision of river courses, no large fuel storage facilities, no extensive tree felling, no works access roads and so on. Accordingly, in this activity, no environmental impact assessment going beyond submission of the project description will be required in any of the CPAs.

SECTION D. Stakeholders' comments

D.1. Please indicate the level at which local stakeholder comments are invited. Justify the choice:

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1. Local stakeholder consultation is done at PoA level ☐
2. Local stakeholder consultation is done at SSC-CPA level ☑

Stakeholder' comments are given on the CPA level.
Comments obtained from the central government (Ministry of Energy and Mining and WREA) regarding the POA are given below.

D.2. Brief description how comments by local stakeholders have been invited and compiled:

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Upon holding direct talks with the responsible officials in the Ministry of Energy and Mining, Electric Power Bureau and the Water Resource and Environment Agency (WREA), comments were collected through conducting direct interviews.

D.3. Summary of the comments received:

>>

1. Ministry of Energy and Mining, Electric Power Bureau

   The Ministry of Energy and Mining is working on raising the electrification rate from 48% at present to 70% by 2010 and 90% by 2020 under the government policy goal of eradicating poverty. The project conforms to this policy objective and is also significant for Laos in that it entails developing oil-substitute energy, i.e. biomass that has so far been unused.

   In extending the project activity as a wider program, this will need to be done while coordinating with rural electrification plans, however, we strongly anticipate realization.

2. Water Resource and Environment Agency (WREA)

   Although we don't have very good understanding of programme-type CDM as a system, we believe the contents of the project entailing the promotion of rural electrification based on utilization of biomass will contribute to the development of Laos.

   In extending the project activity as a wider program, since it will be necessary to coordinate with the Ministry of Energy and Mining in charge of electrification policy, we want close communications to be maintained.

D.4. Report on how due account was taken of any comments received:

>>

Stakeholder' comments are given on the CPA level, however, comments regarding the POA are also positive. Accordingly, there are no plans to take any particular actions regarding the comments

SECTION E. Application of a baseline and monitoring methodology

E.1. Title and reference of the approved SSC baseline and monitoring methodology applied to a SSC-CPA included in the PoA:

>>

AMS-I.A. 'Electricity generation by the user' Version 12
http://cdm.unfccc.int/UserManagement/FileStorage/CDMWF_AM_VECB8EZJV6NSM13KPOVCDLO9PBR4OY

E.2. Justification of the choice of the methodology and why it is applicable to a SSC-CPA:

>>

The project entails power generation using biomass energy (bio-diesel or biogas) and the supply of electricity to households in non-electrified communities. It does not entail connection to the existing power grid. Since the equipment to be newly introduced comprises only new power generating equipment with small capacity (15 MW or less), the CPA satisfies the applicable conditions (Technology / measures) for AMS-I.A.

E.3. Description of the sources and gases included in the SSC-CPA boundary

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According to AMS-I.A, the project boundary includes the physical and geographical locations of renewable energy generation facilities as well as the equipment that uses the generated electricity.

The following figure and table illustrate the generation sources and gases included in the project boundary.

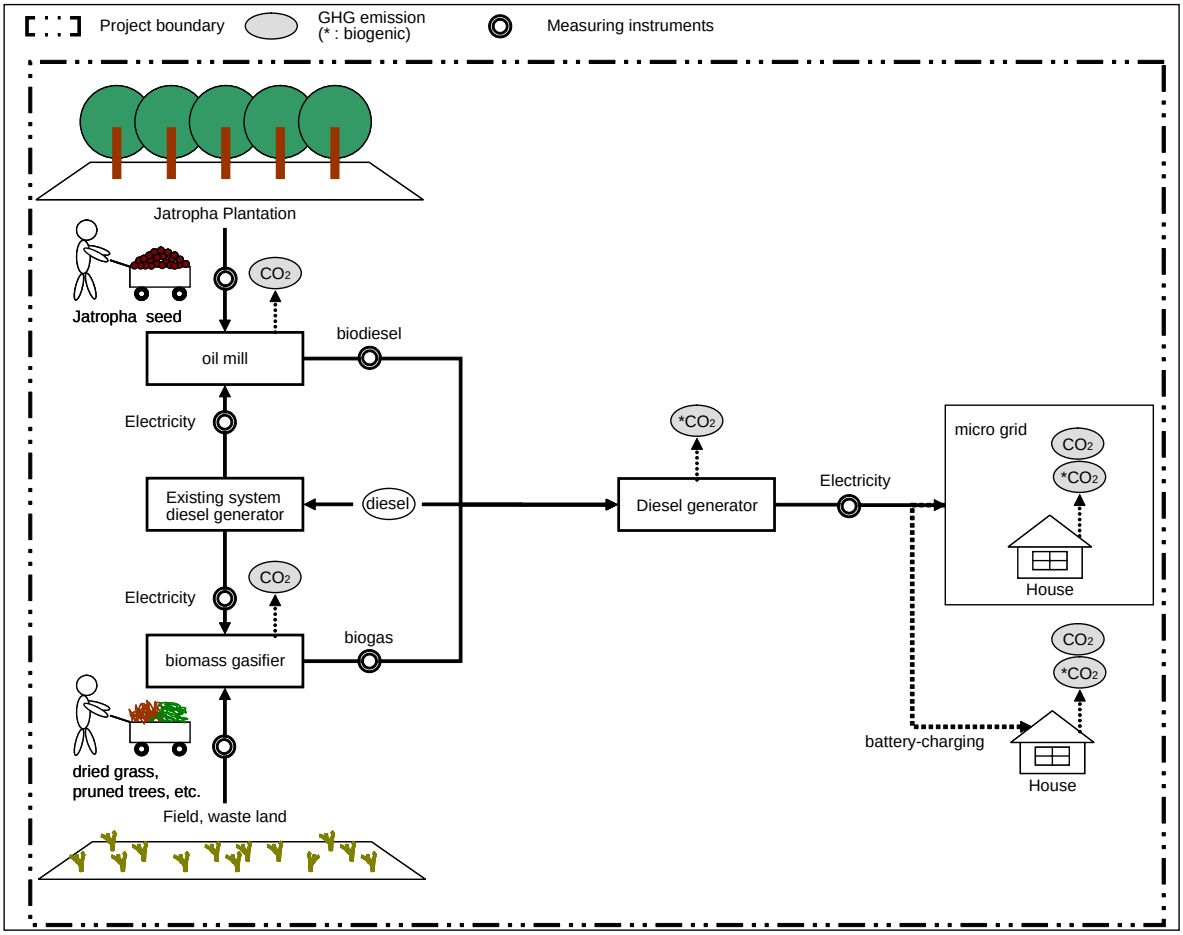

Figure 1 Project boundary

Table 1 Generation Sources and Gases Included in the Project Boundary

	Source	Gas	Included?	Justification / Explanation
Baseline	Emissions from power consumption	CO_2	Yes	Because, if the CDM project is not implemented, it is predicted that diesel generators will be introduced.
Project Activity	Emissions from onsite power consumption	CO_2	No	Because power consumption arising in line with operation of the bio-diesel refining equipment and gasification plant is negligible.
	Emissions from transportation of biomass	CO_2	No	Because biomass will be transported by manual labour without using trucks, etc.

E.4. Description of how the baseline scenario is identified and description of the identified baseline scenario:

>>

The project entails power generation using biomass energy (bio-diesel or biogas) and the supply of electricity to households in non-electrified communities. It does not entail connection to the existing power grid. Moreover, since the equipment to be newly introduced comprises only new power generating equipment with small capacity (15 MW or less), and the CPA satisfies the applicable conditions (Technology / measures) for AMS-I.A, this methodology can be applied.

In the representative model project, the following may be considered as candidate baseline scenarios:

Scenario 1: Maintenance of the status quo (non-electrification)
Scenario 2: Introduction of conventional diesel generators
Scenario 3: Introduction of renewable energy generators

<Concerning Scenario 1>

Laos aims to achieve 90% electrification by 2020 and, although the timing is not definite, it is considered that the situation of non-electrification as inferred in Scenario 1 will not be sustained.

<Concerning Scenario 3>

According to the electrification plans, off-grid electrification utilizing renewable energy and diesel generators is being promoted, however, renewable energy generation is currently not being carried out due to technical and funding reasons. Accordingly, since diesel generators are currently being used, it is forecast that such conventional generators will continue to be introduced in the future.

Accordingly, Scenario 2, i.e. introduction of conventional diesel generators, is set as the baseline scenario.

E.5. Description of how the anthropogenic emissions of GHG by sources are reduced below those that would have occurred in the absence of the SSC-CPA being included as registered PoA (assessment and demonstration of additionality of SSC-CPA):

E.5.1. Assessment and demonstration of additionality for a typical SSC-CPA:

>>

Additionality in the representative model project is demonstrated as follows.

1. The project is an undertaking for electrification of non-electrified areas in Laos.
   The project target site of Na Ven village is an off-grid village in a non-electrified area.

2. The technology cannot be disseminated by the Laos side unaided.
   Laos is hoping to disseminate biomass energy, however, in reality it cannot realize this due to technical and financial constraints. The technology proposed for introduction in this model project is state of the art technology that has undergone empirical experimentation in Japan, however, so far it has not been tried in Laos. Accordingly, the technology cannot be disseminated unaided by the Laos side and is thus additional.

3. It is clear that GHG emissions will be reduced.
   In the model project (Na Ven village) boundary, five diesel engines of 5 kW output operate for around 4 hours per day. As the policy of electrification in Laos progresses, demand for electricity will increase and diesel engines of similar specifications will be added; consequently, it is estimated that annual emissions during the project period will reach approximately 715 tCO_2 on average. This CPA technology is capable of reducing emissions by approximately 85% through replacing fossil fuels used in diesel engines with biogas and bio-diesel. The reduction in emissions from an individual project would be small, however, since the technology will be disseminated as a programme, a large greenhouse gases reduction effect can be anticipated.

4. Project economy is too small to allow unaided dissemination by Laos
   Calculation of the model project profitability as Project IRR results in Project IRR of just 8.1% in the case where credit revenue is not taken into account. Accordingly, there is little possibility that the project can be independently implemented in Laos, and implementation as a CPA can be said to be additional.

E.5.2. Key criteria and data for assessing additionality of a SSC-CPA:

>>

The following are set as criteria for determining the demonstration of additionality of the CPA proposed based on the PoA.

[Key criteria]

1) The project is an undertaking for electrification of non-electrified areas in Laos.
2) The technology cannot be disseminated by the Laos side unaided.
3) It is clear that GHG emissions will be reduced.
4) Project economy is too small to allow unaided dissemination by Laos

Since these key criteria apply to the representative model project described in E5.1, they can be used in the demonstration of additionality.

Furthermore, regarding criteria for determining economy as mentioned in 4), the project IRR shall be used with 10% adopted as the minimum required benchmark.

E.6. Estimation of Emission reductions of a CPA:

E.6.1. Explanation of methodological choices, provided in the approved baseline and monitoring methodology applied, selected for a typical SSC-CPA:

>>

Small-scale methodology AMS-I.A. 'Electricity generation by the user' Version 12
http://cdm.unfccc.int/UserManagement/FileStorage/CDMWF_AM_VECB8EZJV6NSM13KPOVCDLO9PBR4OY

Reasons for selection are as indicated in E.2.

E.6.2. Equations, including fixed parametric values, to be used for calculation of emission reductions of a SSC-CPA:

>>

Ex-ante calculation equations used in the representative model project are as follows.

Annual energy Baseline (fuel consumption)

For calculation of the baseline fuel consumption, AMS-I.A. Option 2 is selected and the following equation is used.

$$E_B = \Sigma_i O_i / (1 - l)$$

E_B	MWh/y	Annual energy baseline
O_i	MWh/y	Annual generated energy based on the introduced renewable energy technology *i*
L	-	Average distribution loss factor measured in the diesel mini grid introduced under public works or the power distribution company in the independent area

Moreover, O_i is obtained from the biomass contribution (fuel consumption rate) SFC_i in the annual generated energy (O_{all}).

$$O_i = O_{all} \times \Sigma_i SFC_i$$

O_{all}	MWh/y	Annual total generated energy
SFC_i	%	Contribution (fuel consumption rate) of the used biomass fuel *i* in the total generated energy

Baseline emissions

The following equation is used to calculate baseline emissions:

$BE_y = E_B \times EF_{diesel}$

BE_y	tCO_2/y	Baseline emissions
EF_{diesel}	tCO_2/MWh	Fuel emission coefficient (default value 2.4: ID)

Project emissions

The following equation is used to calculate project emissions:

$PE_y = EC_y \times EF_{diesel}$

PE_y	tCO_2/y	Project activity emissions
EC_y	MWh/y	Project power consumption
EF_{diesel}	tCO_2/MWh	Fuel emission coefficient (default value 2.4: ID)

Leakage

Since the project entails construction of new facilities on the project site but no transfer of equipment, no leakage will be generated.

Emission reductions

The following equation is used to calculate emission reductions:

$ER_y = BE_y - PE_y$

ER_y	tCO_2/y	emission reductions

E.6.3. Data and parameters that are to be reported in CDM-SSC-CPA-DD form:

The data and parameters that can be used for validation in the representative model project are as follows.

Data / Parameter:	**O_{all}**
Data unit:	MWh/y
Description:	Generated energy
Source of data to be used:	Measured on site
Value of data applied for the purpose of calculating expected emission reductions	211.992~464.198~
Description of measurement methods and procedures to be applied:	Measured continuously by wattmeter and aggregated at least once per year
QA/QC procedures to be applied:	Instruments are periodically tested in order to secure accuracy.
Any comment:	---

Data / Parameter:	**SFC_i**
Data unit:	m^3 or l/MWh
Description:	Consumption rate by type of fuel
Source of data used:	Measure in advance
Value applied:	---
Justification of the choice of data or description of measurement methods and procedures actually applied :	Light oil 15% Bio-diesel (jatropha oil) 15% Biogas 70%
Any comment:	The value calculated from the amount of fuel consumption and the fuel consumption rate is required for comparison with the generated energy monitored during the project activities. The lower value is used in calculation of the emission reductions.

Data / Parameter:	**l**
Data unit:	---
Description:	Mean transmission and distribution loss factor
Source of data used:	Data received from the host country government
Value applied:	0.0
Justification of the choice of data or description of measurement methods and procedures actually applied :	Since electric energy is measured near the receiving side, it is thought that the transmission and distribution loss is taken into account.
Any comment:	This is needed for correction when calculating the amount of fuel consumption from the generated energy.

Data / Parameter:	**EC_y**
Data unit:	MWh
Description:	Project power consumption
Source of data to be used:	Measured onsite
Value of data applied for the purpose of calculating expected emission reductions	0 (small enough to be ignored)
Description of measurement methods and procedures to be applied:	Measured continuously by wattmeter and aggregated at least once per year
QA/QC procedures to be applied:	Instruments are periodically tested in order to secure accuracy.
Any comment:	---

E.7. Application of the monitoring methodology and description of the monitoring plan:

E.7.1. Data and parameters to be monitored by each SSC-CPA:

The project is a PoA, however, since the approved small-scale CDM baseline and monitoring methodology can also be used in a PoA, the small-scale methodology AMS-I.A. 'Electricity generation by the user' Version 12 shall be applied. The conditions for application are as indicated in section 3.1 Application of Baseline Methodology.

Monitoring items in the representative model project are as follows.

Data / Parameter:	**O_{all}**
Data unit:	MWh/y
Description:	Generated energy
Source of data to be used:	Measured on site
Value of data applied for the purpose of calculating expected emission reductions	211.992~464.198~
Description of measurement methods and procedures to be applied:	Measured continuously by wattmeter and aggregated at least once per year
QA/QC procedures to be applied:	Instruments are periodically tested in order to secure accuracy.
Any comment:	---

Data / Parameter:	**EC_y**
Data unit:	MWh
Description:	Project power consumption
Source of data to be used:	Measured onsite
Value of data applied for the purpose of calculating expected emission reductions	0 (small enough to be ignored)
Description of measurement methods and procedures to be applied:	Measured continuously by wattmeter and aggregated at least once per year
QA/QC procedures to be applied:	Instruments are periodically tested in order to secure accuracy.
Any comment:	---

Data / Parameter:	**FC_i**
Data unit:	m^3 or l
Description:	Amount of biomass fuel consumption
Source of data to be used:	Measured onsite
Value of data applied for the purpose of calculating expected emission reductions	Amount of jatropha oil: 15.0~25.6（m^3/y） ※Light oil substitution rate 15% Amount of biogas: 377.6~643.8 (1,000m^3/y) ※Light oil substitution rate 70%
Description of measurement methods and procedures to be applied:	The operator records the amount of fuel replenishment.
QA/QC procedures to be applied:	Instruments are periodically tested in order to secure accuracy.
Any comment:	The value calculated from the amount of fuel consumption and the fuel consumption rate is required for comparison with the generated energy monitored during the project activities. The lower value is used in calculation of the emission reductions.

Data / Parameter:	**MC_i**
Data unit:	t
Description:	Amount of biomass fuel raw materials consumption
Source of data to be used:	Measured onsite
Value of data applied for the purpose of calculating expected emission reductions	---
Description of measurement methods and procedures to be applied:	Measure and record using scales
QA/QC procedures to be applied:	Instruments are periodically tested in order to secure accuracy.
Any comment:	The value calculated from the amount of fuel consumption and the fuel consumption rate is required for comparison with the generated energy monitored during the project activities. The lower value is used in calculation of the emission reductions.

E.7.2. Description of the monitoring plan for a SSC-CPA:

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The monitoring plan in the representative model project is as illustrated below.

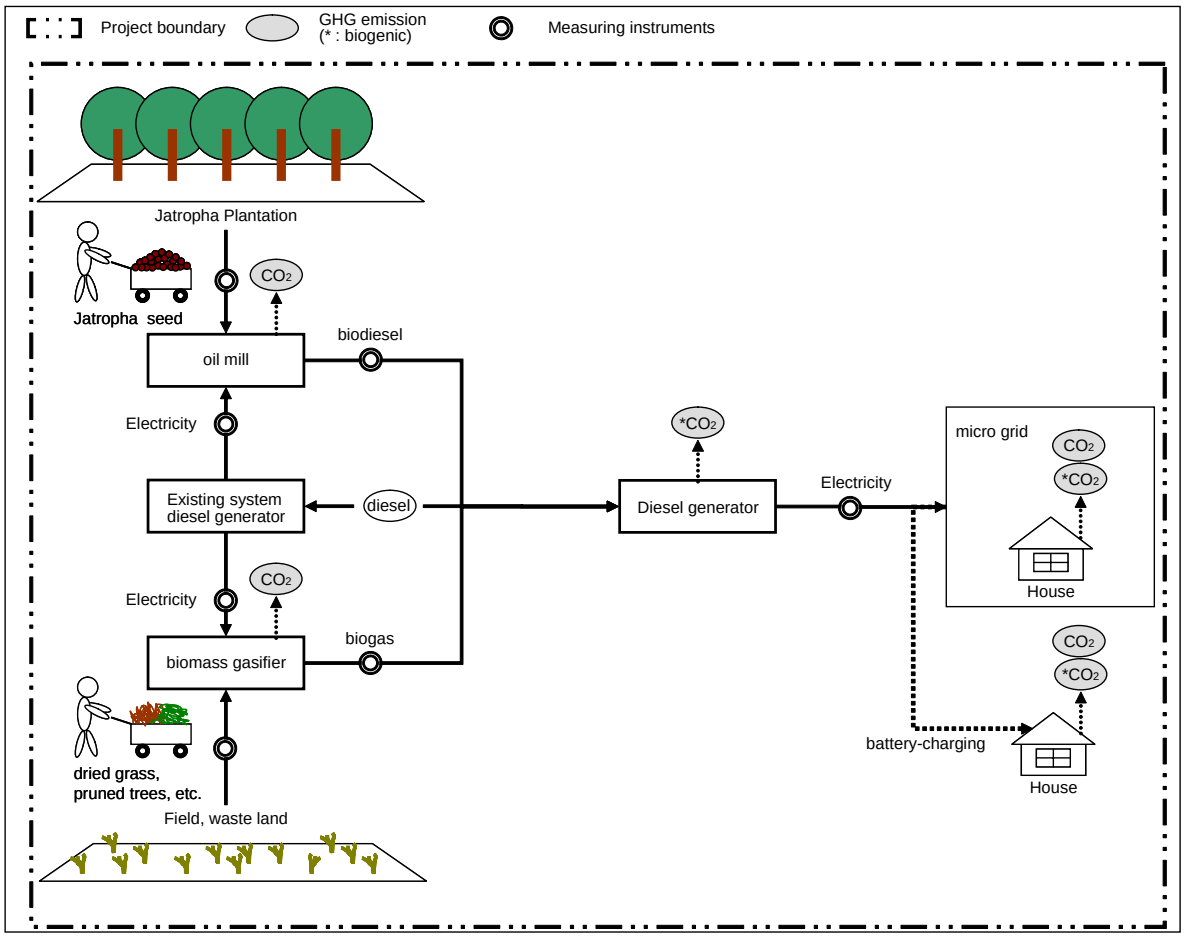

Figure 2 Monitoring plan

In the project, quality control and quality assurance shall be carried out by the following methods.

- ○ The project implementing organization will consist of operating personnel and management.
- ○ Management will prepare written procedures for operating facilities.
- ○ Written procedures, containing daily work contents, periodic maintenance methods and judgment criteria, etc., will be compiled according to appropriate formats.
- ○ Management will check reports from operating personnel and determine there are no problems according to the procedures. If problems are found in such checks, management will implement the appropriate countermeasures with appropriate timing.
- ○ Management will everyday file and store reports from operating personnel according to the procedures.
- ○ In the event of accidents (including the unforeseen release of GHG), management will ascertain the causes, implement and instruct countermeasures to the operating personnel.

- ○ In cases of emergency (including the unforeseen release of GHG), operating personnel will take stopgap measures and implement countermeasures according to instructions from management.
- ○ Measuring instruments will be periodically and appropriately calibrated according to the procedures. Calibration timing and methods will be in accordance with "the monitoring plan".
- ○ Measured data will be disclosed and open to public comment. Received comments and the steps taken in response to them will also be disclosed.
- ○ Measured data will also be subject to audit by government agencies in the host country.

E.8	**Date of completion of the application of the baseline study and monitoring methodology and the name of the responsible person(s)/entity(ies)**

>>

Date: 30/03/2008
General Manager: Kurita Hiroyuki, and
Manager: Kazuhide Maruyama
Manager: Akira Yashio
Shimizu Corporation
GHG Project Department
〒105-8007
SEAVANS SOUTH, 1-2-3
Shibaura, Minato-ku, Tokyo 105-8007
03-5441-0137 (from inside Japan)
+81-3-5441-0137 (from overseas)
(Japanese HP) http://www.shimz.co.jp/
(English HP) http://www.shimz.co.jp/english/index.html

Annex 1

CONTACT INFORMATION ON COORDINATING/MANAGING ENTITY and PARTICIPANTS IN THE PROGRAMME of ACTIVITIES

Project Participant 1

Organization:	The Chugoku Electric Power Co., Inc.
Street/P.O.Box:	4-33 Komachi, Naka-ku
Building:	-
City:	Hiroshima-shi
State/Region:	Hiroshima
Postfix/ZIP:	730-8701
Country:	Japan
Telephone:	+81-82-241-0211
FAX:	-
E-Mail:	-
URL:	http://www.energia.co.jp/energiae/index.html http://www.energia.co.jp/
Represented by:	-
Title:	Manager
Salutation:	Mr.
Last Name:	Takeyama
Middle Name:	-
First Name:	Takayoshi
Department:	Group Management Division
Mobile:	-
Direct FAX:	+81-82-523-6422
Direct tel:	+81-82-523-6424
Personal E-Mail:	451268@pnet.energia.co.jp

Project Participant 2

Organization:	Shimizu Corporation
Street/P.O.Box:	1-2-3, Shibaura
Building:	SEAVANS SOUTH
City:	Minato-ku
State/Region:	Tokyo
Postfix/ZIP:	105-8007
Country:	Japan
Telephone:	81-3-5441-1111 03-5441-1111
FAX:	-
E-Mail:	-
URL:	http://www.shimz.co.jp/english/index.html http://www.shimz.co.jp/
Represented by:	-
Title:	General Manager
Salutation:	Mr.
Last Name:	Kurita
Middle Name:	-
First Name:	Hiroyuki
Department:	GHG Project Department
Mobile:	
Direct FAX:	+81-3-5441-0469 03-5441-0469
Direct tel:	+81-3-5441-0137 03-5441-0137
Personal E-Mail:	kurita@shimz.co.jp

Annex 2

INFORMATION REGARDING PUBLIC FUNDING

The Laos Ministry of Energy and Mining will be the manager of this program activity. Although public funds in Laos will be introduced for management conducted by the manager, no public funds will be made available for the CPA.

Annex 3

BASELINE INFORMATION

Baseline information will be stated in the CPA.

Annex 4

MONITORING INFORMATION

Monitoring information will be stated in the CPA.

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