

Panjin Rice Husk Thermal Energy Generation Project

Document Prepared By Wilmar International Limited

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1 PROJECT DETAILS

1.1 Summary Description of Project

The project is a green-field rice husk based thermal energy generation system to produce steam (Phase I) and electricity (Phase II). The project is owned and operated by Yihai Kerry (Panjin) Bio-cogeneration Co., Ltd. ("Project Proponent" or "PP"), a subsidiary of Wilmar International Ltd.

The PP purchases rice husks from the 'Yihai Kerry (Panjin) Oils and Grains Industries Co., Ltd' also the consumer of steam ("steam customer") and from the surrounding areas if required. No other co-firing is provided for.

The project comprises two boilers with installed capacity of 15 MT/hour each and one steam turbine with an installed capacity of 3 MW.

As described in the validated PD at registration, the baseline fuel for the steam from the 15 MT/hour boilers is coal.

The project contributes to the greenhouse gas (GHG) emission reduction by avoiding potential use of a fossil fuel (in this case, coal) for thermal energy production.

The operations of the project started on 19 October 2009 and the total emission reductions achieved in the monitoring periods are as follows:

- Monitoring Period 1 (19-October-2009 – 18-October-2010) "MP1": 21,448 tCO₂
- Monitoring Period 2 (19-October-2010 – 18-October-2011) "MP2": 9,770 tCO₂
- Monitoring Period 3 (19-October-2011 – 18-October-2012) "MP3": 14,566 tCO₂
- Monitoring Period 4 (19-October-2012 – 31-December-2012) "MP4": 4,907 tCO₂

1.2 Sectoral Scope and Project Type

The project falls in VCS Sectoral Scope 1 - Energy (renewable/non-renewable). It is a stand-alone project and is not grouped with any other project.

1.3 Project Proponent

1. Wilmar International Limited
Role: VCS Project Developer

Responsibility: Undertake all activities leading to registration of VCS project and monitoring, verification and issuance of VCU.

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2. Yihai Kerry (Panjin) Bio-cogeneration Co., Ltd
Role: Project Host/Project Participant

Responsibility: Undertake all activities leading to implementation and operation of the project and provision of necessary information to the project developer for registration of VCS project and monitoring, verification and issuance of VCU.

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1.4 Other Entities Involved in the Project

There are no other entities involved in the project.

1.5 Project Start Date

19-October-2009

1.6 Project Crediting Period

19-October-2009 to 18-October-2019 (fixed crediting period).

The length of the project crediting period is 10 years.

1.7 Project Location

The project is located at Panjin, Liaoning Province, China. The location GPS coordinates are 41°14'56.87"N and 122° 0'37.56"E. The project site is about 10 km from Panjin town to the north.

1.8 Title and Reference of Methodology

AMS I.C (version 16) "Thermal energy production with or without electricity".

2 IMPLEMENTATION STATUS

2.1 Implementation Status of the Project Activity

Both Boilers 1 and 2 have been commissioned, and the steam turbine has been installed but not yet commissioned. Boilers 1 and 2 have operated alternately during the monitoring periods; however, the steam turbine has not been used to generate electricity supplied to the grid. The total annual operating hours for the boilers are as follows:

- Monitoring Period 1: 8,627
- Monitoring Period 2: 5,819
- Monitoring Period 3: 7,903
- Monitoring Period 4: 1,767

There are no events or situations that occurred during the monitoring period which may impact the applicability of the methodology or the GHG emission reductions.

The VCS PD was validated by the Designated Operational Entity, Bureau Veritas Certification (BV) and the present monitoring report will also be verified by BV.

The monitoring data was kept according to the monitoring plan as described in Section 3 of the validated VCS PD. The VCS project replaces coal (fossil fuel) with rice husk (biomass) which is burned in two 15 MT/hour rice husk based steam boilers to generate thermal energy.

2.2 Project Description Deviations

A 3 MW steam turbine has been installed instead of a 6 MW steam turbine as was stated in Section 1.4 of the registered/validated PD.

As per the PD available at validation, the project should have included installation of a 6MW turbine that would have been operating at 3MW with a buffer capacity for 6MW in case more rice husk is available in future. However, a 3MW capacity turbine was installed later without leaving any buffer for additional electricity generation. Hence, apart from a reduction in the physical size of the turbine installed, there is no deviation with respect to planned quantity of electricity generation and thus there are no impacts on the baseline and additionality.

2.3 Grouped Project

This is not a grouped project thus, this is not applicable.

3 DATA AND PARAMETERS

3.1 Data and Parameters Available at Validation

Data Unit / Parameter:	$\eta_{BL,thermal}$ (for Phase I only)
Data unit:	-
Description:	Average net efficiency of a similar thermal heat generation system in the baseline using coal
Source of data:	An efficiency of 100% as a conservative default value (refer: clause 18(c) in AMS I.C – version 16)
Value applied:	100%
Purpose of the data:	This is used for baseline emissions estimation
Any comment:	-

3.2 Data and Parameters Monitored

Data Unit / Parameter:	$EF_{coal,CO_2,y}$
Data unit:	tCO _{2e} /TJ
Description:	The CO ₂ emission factor of the fossil fuel (coal) that would have been used in the baseline plant
Source of data:	Since no accurate and reliable local or national data is available, IPCC default emission factors (country-specific, if available) if they are deemed to reasonably represent local circumstances has been used
Description of measurement methods and procedures to be applied:	Not relevant
Frequency of monitoring/recording:	Annually
Value monitored:	94.6
Monitoring equipment:	Not relevant

QA/QC procedures to be applied:	Not relevant
Calculation method:	Not relevant
Any comment:	No revision to the guideline was noted during the monitoring periods.

Data Unit / Parameter:	Temp _{Steam,1}
Data unit:	°C
Description:	Temperature of MP steam delivered to the “steam customer” (Boiler 1)
Source of data:	Temperature sensors on the steam delivery line, recorded in the Hourly Boiler Operations Report
Description of measurement methods and procedures to be applied:	On-line data records obtained from PLC readings using temperature sensors on MP steam delivery line attached to the boiler performance monitoring system
Frequency of monitoring/recording:	Hourly (hourly averaged value integrated over the hour preceding the time when the monitored value is recorded)
Value monitored:	<ul style="list-style-type: none"> • Monitoring Period 1: 335 • Monitoring Period 2: 299 • Monitoring Period 3: 292 • Monitoring Period 4: 340
Monitoring equipment:	Type: Temperature meter Accuracy class: 0.02
QA/QC procedures to be applied:	Periodic verification by site/shift supervisor. Calibration procedures are in accordance to national standards and regulations. Frequency of calibration: Annually Calibration dates for <ul style="list-style-type: none"> • Monitoring Period 1: 21st October 2009 • Monitoring Period 2: 25th October 2010 • Monitoring Period 3: 22nd October 2011 • Monitoring Period 4: 15th October 2012
Calculation method:	Not relevant
Any comment:	At Metering Point #7 of the Monitoring Plan Diagram (Section 5 of Monitoring Report).

Data Unit / Parameter:	Temp _{Steam,2}
Data unit:	°C
Description:	Temperature of MP steam delivered to the “steam customer” (Boiler 2)
Source of data:	Temperature sensors on the steam delivery line, recorded in the Hourly Boiler Operations Report

Description of measurement methods and procedures to be applied:	On-line data records obtained from PLC readings using temperature sensors on MP steam delivery line attached to the boiler performance monitoring system
Frequency of monitoring/recording:	Hourly (hourly averaged value integrated over the hour preceding the time when the monitored value is recorded)
Value monitored:	<ul style="list-style-type: none"> Monitoring Period 1: 352 Monitoring Period 2: 258 Monitoring Period 3: 290 Monitoring Period 4: 357
Monitoring equipment:	Type: Temperature meter Accuracy class: 0.02
QA/QC procedures to be applied:	Periodic verification by site/shift supervisor. Calibration procedures are in accordance to national standards and regulations. Frequency of calibration: Annually Calibration dates for <ul style="list-style-type: none"> Monitoring Period 1: 21st October 2009 Monitoring Period 2: 25th October 2010 Monitoring Period 3: 22nd October 2011 Monitoring Period 4: 15th October 2012
Calculation method:	Not relevant
Any comment:	At Metering Point #7 of the Monitoring Plan Diagram (Section 5 of Monitoring Report).

Data Unit / Parameter:	$P_{\text{Steam},1}$
Data unit:	MPa
Description:	Pressure of MP steam delivered to the "steam customer" (Boiler 1)
Source of data:	Pressure sensors on steam delivery line, recorded in the Hourly Boiler Operations Report
Description of measurement methods and procedures to be applied:	On-line data records obtained from PLC readings using pressure sensors on steam delivery line attached to the boiler performance monitoring system
Frequency of monitoring/recording:	Hourly (hourly averaged value integrated over the hour preceding the time when the monitored value is recorded)
Value monitored:	<ul style="list-style-type: none"> Monitoring Period 1: 1.98 Monitoring Period 2: 1.81 Monitoring Period 3: 1.34 Monitoring Period 4: 1.90
Monitoring equipment:	Type: Pressure meter Accuracy class: 0.005%

QA/QC procedures to be applied:	Periodic verification by site/shift supervisor. Calibration procedures are in accordance to national standards and regulations. Frequency of calibration: Annually Calibration dates for <ul style="list-style-type: none"> Monitoring Period 1: 20th October 2009 Monitoring Period 2: 18th October 2010 Monitoring Period 3: 15th October 2011 Monitoring Period 4: 12th October 2012
Calculation method:	Not relevant
Any comment:	At Metering Point #7 of the Monitoring Plan Diagram (Section 5 of Monitoring Report).

Data Unit / Parameter:	P _{Steam,2}
Data unit:	MPa
Description:	Pressure of MP steam delivered to the “steam customer” (Boiler 2)
Source of data:	Pressure sensors on steam delivery line, recorded in the Hourly Boiler Operations Report
Description of measurement methods and procedures to be applied:	On-line data records obtained from PLC readings using pressure sensors on steam delivery line attached to the boiler performance monitoring system
Frequency of monitoring/recording:	Hourly (hourly averaged value integrated over the hour preceding the time when the monitored value is recorded)
Value monitored:	<ul style="list-style-type: none"> Monitoring Period 1: 2.23 Monitoring Period 2: 1.54 Monitoring Period 3: 1.55 Monitoring Period 4: 2.37
Monitoring equipment:	Type: Pressure meter Accuracy class: 0.005%
QA/QC procedures to be applied:	Periodic verification by site/shift supervisor. Calibration procedures are in accordance to national standards and regulations. Frequency of calibration: Annually Calibration dates for <ul style="list-style-type: none"> Monitoring Period 1: 20th October 2009 Monitoring Period 2: 18th October 2010 Monitoring Period 3: 15th October 2011 Monitoring Period 4: 12th October 2012
Calculation method:	Not relevant
Any comment:	At Metering Point #7 of the Monitoring Plan Diagram (Section 5 of Monitoring Report).

Data Unit / Parameter:	Temp _{FeedWater}
Data unit:	°C
Description:	Temperature of feed water (at atmospheric pressure) entering the 15 MT/hour boiler
Source of data:	Temperature sensors on feed water delivery line, recorded in the Hourly Boiler Operations Report
Description of measurement methods and procedures to be applied:	On-line data records obtained from PLC readings using temperature sensors on feed water delivery line attached to the boiler performance monitoring system
Frequency of monitoring/recording:	Hourly (hourly averaged value integrated over the hour preceding the time when the monitored value is recorded)
Value monitored:	<ul style="list-style-type: none"> • Monitoring Period 1: 105 • Monitoring Period 2: 105 • Monitoring Period 3: 100 • Monitoring Period 4: 101
Monitoring equipment:	Type: Temperature meter Accuracy class: 0.02
QA/QC procedures to be applied:	Periodic verification by site/shift supervisor. Calibration procedures are in accordance to national standards and regulations. Frequency of calibration: Annually Calibration dates for <ul style="list-style-type: none"> • Monitoring Period 1: 10th August 2009 • Monitoring Period 2: 12th August 2010 • Monitoring Period 3: 15th August 2011 • Monitoring Period 4: 21st August 2012
Calculation method:	Not relevant
Any comment:	At Metering Point #4 of the Monitoring Plan Diagram (Section 5 of Monitoring Report).

Data Unit / Parameter:	FL _{steam,1}
Data unit:	MT/hr
Description:	Flow rate of MP steam delivered by the 15 MT/hour Boiler 1 to the steam customers
Source of data:	Flow meters located after the boilers, recorded in the Hourly Boiler Operations Report
Description of measurement methods and procedures to be applied:	On-line data records obtained from PLC readings using flow rate sensors on the steam delivery line
Frequency of monitoring/recording:	Daily
Value monitored:	<ul style="list-style-type: none"> • Monitoring Period 1: 9.16 • Monitoring Period 2: 6.72 • Monitoring Period 3: 8.98

	<ul style="list-style-type: none"> Monitoring Period 4: 9.96
Monitoring equipment:	Type: Flow meter Accuracy class: 0.005%
QA/QC procedures to be applied:	Periodic verification by site/shift supervisor. Calibration procedures are in accordance to national standards and regulations. Frequency of calibration: annually Calibration dates for <ul style="list-style-type: none"> Monitoring Period 1: 20th August 2009 Monitoring Period 2: 18th August 2010 Monitoring Period 3: 15th August 2011 Monitoring Period 4: 13th August 2012
Calculation method:	Not relevant
Any comment:	At Metering Point #5 of the Monitoring Plan Diagram (Section 5 of Monitoring Report).

Data Unit / Parameter:	FL _{steam,2}
Data unit:	MT/hr
Description:	Flow rate of MP steam delivered by the 15 MT/hour Boiler 2 to the steam customers
Source of data:	Flow meters located after the boilers, recorded in the Hourly Boiler Operations Report
Description of measurement methods and procedures to be applied:	On-line data records obtained from PLC readings using flow rate sensors on the steam delivery line
Frequency of monitoring/recording:	Daily
Value monitored:	<ul style="list-style-type: none"> Monitoring Period 1: 10.87 Monitoring Period 2: 6.90 Monitoring Period 3: 7.11 Monitoring Period 4: 11.50
Monitoring equipment:	Type: Flow meter Accuracy class: 0.005%
QA/QC procedures to be applied:	Periodic verification by site/shift supervisor. Calibration procedures are in accordance to national standards and regulations. Frequency of calibration: annually Calibration dates for <ul style="list-style-type: none"> Monitoring Period 1: 20th August 2009 Monitoring Period 2: 18th August 2010 Monitoring Period 3: 15th August 2011 Monitoring Period 4: 13th August 2012
Calculation method:	Not relevant
Any comment:	At Metering Point #6 of the Monitoring Plan Diagram (Section 5 of Monitoring Report).

Data Unit / Parameter:	HR ₁
Data unit:	Hours
Description:	Daily operational hours for the 15 MT/hour MP boiler (Boiler 1)
Source of data:	Daily Boiler Operations Report
Description of measurement methods and procedures to be applied:	Plant daily operation records maintained at the project site
Frequency of monitoring/recording:	Daily
Value monitored:	<ul style="list-style-type: none"> • Monitoring Period 1: 5,747 • Monitoring Period 2: 4,618 • Monitoring Period 3: 1,967 • Monitoring Period 4: 831
Monitoring equipment:	Not relevant
QA/QC procedures to be applied:	Periodic verification by site/shift supervisor
Calculation method:	Not relevant
Any comment:	-

Data Unit / Parameter:	HR ₂
Data unit:	Hours
Description:	Daily operational hours for the 15 MT/hour MP boiler (Boiler 2)
Source of data:	Daily Boiler Operations Report
Description of measurement methods and procedures to be applied:	Plant daily operation records maintained at the project site
Frequency of monitoring/recording:	Daily
Value monitored:	<ul style="list-style-type: none"> • Monitoring Period 1: 5,747 • Monitoring Period 2: 1,201 • Monitoring Period 3: 5,936 • Monitoring Period 4: 936
Monitoring equipment:	Not relevant
QA/QC procedures to be applied:	Periodic verification by site/shift supervisor
Calculation method:	Not relevant
Any comment:	-

Data Unit / Parameter:	RH _{Consumed,B1}
Data unit:	MT
Description:	Annual quantity of rice husk used in one of the 15 MT/hour boiler (Boiler 1)

Source of data:	On-line air-lock system based flow meter (continuous basis)
Description of measurement methods and procedures to be applied:	As per PLC reading for the feeding chambers located before each boiler and recorded in the daily production report
Frequency of monitoring/recording:	Continuously
Value monitored:	<ul style="list-style-type: none"> Monitoring Period 1: 14,484 Monitoring Period 2: 8,810 Monitoring Period 3: 3,545 Monitoring Period 4: 1,619
Monitoring equipment:	Continuous flow meter
QA/QC procedures to be applied:	Periodic verification by site/shift supervisor
Calculation method:	Using equipment provider's empirical formula using input data on mass flow
Any comment:	At Metering Point #2 of the Monitoring Plan Diagram (Section 5 of Monitoring Report).

Data Unit / Parameter:	RH _{Consumed,B2}
Data unit:	MT
Description:	Annual quantity of rice husk used in one of the 15 MT/hour boiler (Boiler 2)
Source of data:	On-line air-lock system based flow meter (continuous basis)
Description of measurement methods and procedures to be applied:	As per PLC reading for the feeding chambers located before each boiler and recorded in the daily production report
Frequency of monitoring/recording:	Continuously
Value monitored:	<ul style="list-style-type: none"> Monitoring Period 1: 8,065 Monitoring Period 2: 1,738 Monitoring Period 3: 8,401 Monitoring Period 4: 3,013
Monitoring equipment:	Continuous flow meter
QA/QC procedures to be applied:	Periodic verification by site/shift supervisor
Calculation method:	Using equipment provider's empirical formula using input data on mass flow
Any comment:	At Metering Point #3 of the Monitoring Plan Diagram (Section 5 of Monitoring Report).

Data Unit / Parameter:	RH _{Supplied}
Data unit:	MT
Description:	Annual quantity of rice husk purchased from a rice mill located nearby the project as per dedicated supply contract, which is accounted for

	as the rice husk procured from the region from a source not affected by any other 'competing demand for the same quantity of rice husk'
Source of data:	As per the invoice for rice husk purchase from the rice mill
Description of measurement methods and procedures to be applied:	Not required
Frequency of monitoring/recording:	Continuously
Value monitored:	There was no rice husks procured for MP1, MP2, MP3, MP4
Monitoring equipment:	NA
QA/QC procedures to be applied:	Periodic verification by site/shift supervisor
Calculation method:	NA
Any comment:	-

3.3 Description of the Monitoring Plan

The responsibility and reporting of the monitoring parameters follows the procedures set out in the monitoring plan.

The project uses the PLC system which electronically monitors the main performance and outputs of the boiler. The data for the parameters covered in the monitoring plan are drawn extensively from the PLC system. The monitoring procedures are as described in the monitoring plan.

The PP uses its operational team at the site for the purpose of monitoring information, collection and management. This includes carrying out the monitoring and maintaining records of all the monitored data. The team is also responsible for managing the monitoring equipment calibration and maintenance.

4 QUANTIFICATION OF GHG EMISSION REDUCTIONS AND REMOVALS

4.1 Baseline Emissions

The two 15 MT/hour boilers use rice husks. The project alternative is to use coal as the baseline fuel in the two boilers. Thus, the baseline emissions for implementation of the project, with MP1, MP2, MP3 and MP4 operation per year are calculated using clause 15 in AMS I.C (version 16).

Step 1: Using "Steam Table" and monitored values of steam temperature ($Temp_{\text{Steam}}$ in °C), pressure (P_{Steam} in 'MPa') and temperature of feedwater ($Temp_{\text{feedwater}}$ in °C), the enthalpy (in 'kJ/kg') of delivered steam will be determined on an hourly basis for the monitoring period for which emission reductions will be monitored.

- Relevant steam data for dates when meters were sent for calibration, are excluded from the computation
 - MP1: 21 October 2009, 12 August 2010, 18 August 2010, 18 October 2010 – meters sent for calibration
 - MP2: 25 October 2010, 15 August 2011, 15 October 2011 – meters sent for calibration
 - MP3: 22 October 2011, 13 August 2012, 21 August 2012, 12 October 2012, 15 October 2012 – meters sent for calibration.

Step 2: The hourly steam flow (FL_{Steam} in 'MT/hour' converted to 'kg/hour') delivered to the "steam customer" will be multiplied by the enthalpy of steam delivered (in 'kJ/kg') to obtain the hourly value of thermal energy delivered to the steam consumer (EG_{thermal} in 'kJ/hour').

Step 3: The total thermal energy ($EG_{\text{thermal},y}$ in 'TJ') delivered to the 'steam consumer' will be calculated as the summation of each hourly value of thermal energy delivered to the steam consumer (EG_{thermal} in 'kJ/hour' converted to 'TJ/hour') over the corresponding monitoring period (HR in 'hour').

Step 4: Baseline emissions ($BE_{\text{thermal},\text{CO}_2,y}$ in 'tCO_{2e}') avoided during the monitoring period 'HR' (or 'y') by virtue of steam delivered to the "steam customer" will be calculated as per the following formula as per clause 15 in AMS I.C (version 16):

$$BE_{\text{thermal},\text{CO}_2,y} = [(EG_{\text{thermal},y})/\eta_{\text{BL},\text{thermal}}] * EF_{\text{FF},\text{CO}_2}$$

Where,

$BE_{\text{thermal},\text{CO}_2,y}$	the baseline emissions from steam/heat displaced by the project during the year 'y'; in tCO ₂
$EG_{\text{thermal},y}$	the net quantity of steam/heat supplied by the project during the year 'y'; in TJ
$\eta_{\text{BL},\text{thermal}}$	the efficiency of the coal based baseline plant that would have been used in the absence of the project
$EF_{\text{FF},\text{CO}_2}$	the CO ₂ emission factor of the fossil fuel (in this case, coal) that would have been used in the baseline plant; in tCO ₂ /TJ; this is taken from IPCC

$EG_{\text{thermal},y}$ is calculated based on the difference in total steam enthalpy and total feed water enthalpy times multiplied by annual steam quantity.

$\eta_{\text{BL},\text{thermal}} = 100\%$, as per Clause 18(c) of AMS I.C (version 16)

$EF_{\text{FF},\text{CO}_2} = 94.6 \text{ tCO}_2/\text{TJ}$, as per IPCC

Monitoring Period 1:

$$\begin{aligned} EG_{\text{thermal},1} &= 226.73 \text{ TJ} \\ BE_{\text{thermal},1} &= (EG_{\text{thermal},1} / \eta_{\text{BL},\text{thermal}}) * EF_{\text{coal},\text{CO}_2} \\ &= (226.73 \text{ TJ} / 100\%) * 94.6 \text{ tCO}_2/\text{TJ} \\ &= 21,448 \text{ tCO}_2 \end{aligned}$$

Monitoring Period 2:

$$\begin{aligned} EG_{\text{thermal},2} &= 103.28 \text{ TJ} \\ BE_{\text{thermal},2} &= (EG_{\text{thermal},2} / \eta_{\text{BL},\text{thermal}}) * EF_{\text{coal},\text{CO}_2} \\ &= (103.28 \text{ TJ} / 100\%) * 94.6 \text{ tCO}_2/\text{TJ} \\ &= 9,770 \text{ tCO}_2 \end{aligned}$$

Monitoring Period 3:

$$\begin{aligned} EG_{\text{thermal},3} &= 153.98 \text{ TJ} \\ BE_{\text{thermal},3} &= (EG_{\text{thermal},3} / \eta_{\text{BL},\text{thermal}}) * EF_{\text{coal},\text{CO}_2} \\ &= (153.98 \text{ TJ} / 100\%) * 94.6 \text{ tCO}_2/\text{TJ} \\ &= 14,566 \text{ tCO}_2 \end{aligned}$$

Monitoring Period 4:

$$\begin{aligned} EG_{\text{thermal},4} &= 51.87 \text{ TJ} \\ BE_{\text{thermal},4} &= (EG_{\text{thermal},4} / \eta_{\text{BL},\text{thermal}}) * EF_{\text{coal},\text{CO}_2} \\ &= (51.87 \text{ TJ} / 100\%) * 94.6 \text{ tCO}_2/\text{TJ} \\ &= 4,907 \text{ tCO}_2 \end{aligned}$$

4.2 Project Emissions

There are no project emissions in the VCS project (refer to Section 2.3 of registered/validated VCS PD).

4.3 Leakage

There are no leakage emissions from use of rice husk, and its collection, processing and transportation because the procurement of rice husk was from a rice mill located adjacent to the project location, within 500 meters (refer to Section 1.9 of registered/validated VCS PD).

4.4 Summary of GHG Emission Reductions and Removals

The emission reductions are calculated as per the following:

$$ER_y = BE_y - PE_y - LE_y$$

Monitoring Period 1:

Total baseline emissions: 21,448 tCO₂

Total project emissions: 0

Total leakage: 0

Total emission reductions: 21,448 tCO₂

Monitoring Period 2:

Total baseline emissions: 9,770 tCO₂

Total project emissions: 0

Total leakage: 0

Total emission reductions: 9,770 tCO₂

Monitoring Period 3:

Total baseline emissions: 14,566 tCO₂

Total project emissions: 0

Total leakage: 0

Total emission reductions: 14,566 tCO₂

Monitoring Period 4:

Total baseline emissions: 4,907 tCO₂

Total project emissions: 0

Total leakage: 0

Total emission reductions: 4,907 tCO₂

5 ADDITIONAL INFORMATION

