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TEMPLATE

MONITORING REPORT

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VERSION v. 1.1

RELATED SUPPORT – TEMPLATE GUIDE Monitoring Report v. 1.1

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KEY PROJECT INFORMATION

Key Project Information

GS ID (s) of Project (s)	GS397
Title of the project (s) covered by monitoring report	Suzhou Qizi Mountain Landfill Gas Recovery Project
Version number of the PDD/VPA-DD (s) applicable to this monitoring report	3.2
Version number of the monitoring report	2.0
Completion date of the monitoring report	30/11/2023
Date of project design certification	22/04/2009
Date of Last Annual Report	15/12/2021
Monitoring period number	3 rd MP of 2 nd CP
Duration of this monitoring period	01/08/2020-21/04/2021(both dates inclusive)
Project Representative	South Pole Carbon Asset Management Ltd.
Host Country	China
Activity Requirements applied	☐ Community Services Activities ☒ Renewable Energy Activities ☐ Land Use and Forestry Activities/Risks & Capacities ☐ N/A
Methodology (ies) applied and version number	ACM0001 Flaring or use of landfill gas (Version 16.0)
Product Requirements applied	☒ GHG Emissions Reduction & Sequestration ☐ Renewable Energy Label ☐ N/A

Table 1 - Sustainable Development Contributions Achieved

Sustainable Development Goals Targeted	SDG Impact	Amount Achieved	Units/ Products
SDG 7 Ensure access to MWh affordable, reliable, sustainable and modern energy for all (Affordable and Clean Energy)	MWh of renewable energy generated	12,320	MWh
SDG 8 Promote inclusive and sustainable economic growth, employment and decent work for all (Decent Work and Economic Growth)	Number of jobs created	All the employees have access to training, health care, social insurances. 20 including 8 fixed jobs and / 12 temporary jobs with average salary is above the lowest level of local area.	
SDG 13 Climate Action	Emissions Reductions	67,246	VERs

Table 2 – Product Vintages

		Amount Achieved
Start Dates	End Dates	VERs
01/08/2020	31/12/2020	51,261
01/01/2021	21/04/2021	15,985

SECTION A. DESCRIPTION OF PROJECT

A.1. General description of project

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'Suzhou Qizi Mountain Landfill Gas Recovery Project', developed by Everbright Environment and Energy (Suzhou) Landfill Gas to Energy Co., Ltd., is located at Qizi Mountain Landfill, Suzhou, Jiangsu Province, China. The purpose of the project is to utilize landfill gas (LFG) for electricity generation. It is a combination project including LFG collection, LFG processing system and electricity generation. LFG collected is used for electricity generation with internal combustion engines and generators.

It was registered as GS project on 22/04/2009, with GS ID of 397. The second crediting period is from 22/04/2014 to 21/04/2021. The first monitoring period is from 22/04/2007 to 31/07/2009. The second monitoring period is from 01/08/2009 to 31/07/2010. The third monitoring period is from 01/08/2010 to 31/12/2011. The fourth monitoring period is from 01/01/2012 to 31/12/2013. The fifth monitoring period is from 01/01/2014 to 21/04/2014. The sixth monitoring period is from 22/04/2014 to 31/03/2018. The seventh monitoring period is from 01/04/2018 to 31/07/2020.

This is the eighth monitoring period and the 3rd monitoring period of 2nd crediting period for the project, which is from 01/08/2020 to 21/04/2021 (both dates inclusive). The estimated annual emission reductions were 136,794 tCO₂e during 2nd crediting period.

A.2. Location of project

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The project is located on Qizi Mountain, Mudu County, Wuzhong District, Suzhou City, Jiangsu province, P.R.China. It is 13km far from the centre of Suzhou City. The exact location of the project is 31°14'15''N, 120°33'9''E. A map indicating the location of the project site is provided in Fig A.1.



Figure A.1 The location of the project

A.3. Reference of applied methodology

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The approved large-scale consolidated methodology ACM0001 "Flaring or use of landfill gas" (Version 16.0) is applied to the project activity.

The following tools are also applied:

"Tool to calculate the emission factor for an electricity system (version05.0)"

"Tool to calculate baseline, project and/or leakage emissions from electricity consumption (Version 01)"

"Tool for the demonstration and assessment of additionality (Version 05.2)"

"Emissions from solid waste disposal sites (version 07.0)"

"Tool to determine the remaining lifetime of equipment (version 01)"

A.4. Crediting period of project

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Renewable. The second crediting period is from 22/04/2014 to 21/04/2021, seven years.

SECTION B. IMPLEMENTATION OF PROJECT

B.1. Description of implemented project

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This project uses landfill gas (LFG) for electricity generation. It includes LFG collection, LFG treatment process and electricity generation. The electricity generated is exported to East China Power Grid (ECPG) to replace equivalent amount of electricity from those fossil fuel power plants connected to ECPG.

1.25MW*4 generators are designed. Among these 4 generators, 2 generators started construction in November 2005 and started operation on 01/01/2007, 1 generator started construction in August 2007 and started operation in September 2008, and 1 generator is still under plan.

The project operates smoothly during this monitoring period. The net electricity export is 12,319,803KWh. The operation time of each generator in this monitoring period is 5,990h (generator 3#), 3,494h (generator 4#) and 6,083h (generator 5#).

Details of electricity generating system are shown below.

Manufacture	Deutz Power Systems GmH&Co., KG
Name	Engine
Type	TBG620V16K
Installed capacity	1294KW
Technical description	Modern stationary 4-stroke Otto gas engine with lean-mix combustion; 16 cylinder V-engine

Manufacture	AVK Deutschland GmbH & Co.KG
Name	Generator
Type	DIG 120 i/4
Installed capacity	1250KW
Technical description	Rotary current internal pole synchronous generator. Three phase, brushless, self-exciting, self regulating

Manufacture	Deutz Power Systems GmH&Co., KG
Name	TEM EVO System
Technical description	The DEUTZ Total Electronic Management (TEM) system includes the control and monitoring of all functions of a gas engine auxiliary drive in one unit.

There is no change and deviation compared to PDD.

B.1.1. Forward Action Requests

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No FAR from validation and/or previous monitoring period.

B.2. Post-Design Certification changes

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B.2.1. Temporary deviations from the approved Monitoring & Reporting Plan, methodology or standardized baseline

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No temporary deviations from the approved Monitoring & Reporting Plan, methodology or standardized baseline.

B.2.2. Corrections

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No corrections.

B.2.3. Changes to start date of crediting period

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No changes to start date of crediting period.

B.2.4. Permanent changes from the Design Certified monitoring plan, applied methodology or applied standardized baseline

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No permanent changes from the Design Certified monitoring plan, applied methodology or applied standardized baseline.

B.2.5. Changes to project design of approved project

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No changes to project design of approved project.

SECTION C. DESCRIPTION OF MONITORING SYSTEM APPLIED BY THE PROJECT

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1. Electricity Generation

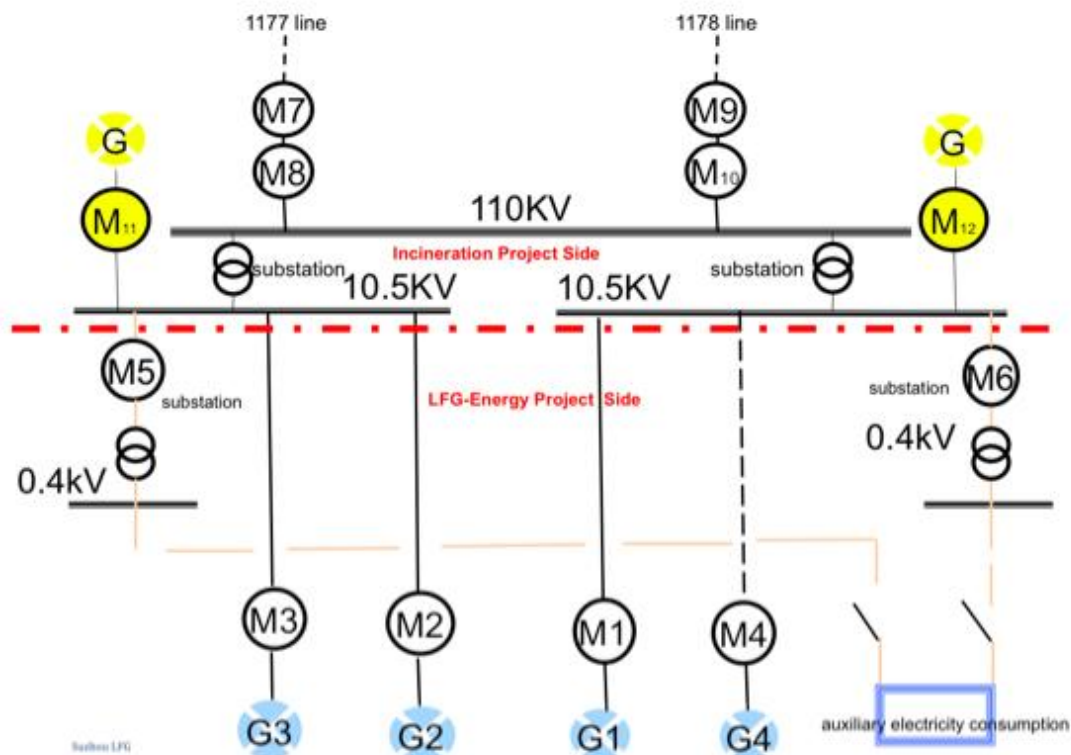


Fig. 1 Simplified Diagram of the Electric Layout

According to the Chinese national standard “Technical Management Code for Electricity Metering” (DL/T448-2016), the electricity metering equipment were properly configured and the metering equipment were checked by both the project owner and the grid company before the project is in operation.

Meter M1, M2 and M3, which are with an accuracy of 0.5S and bidirectional electronic meters, are installed to measure gross power generation of generators. M4 will be installed to measure power generation of the fourth generator. M5 and M6, which are with an accuracy of 2, measure electricity imported from the grid by the project. M7, M8, M9 and M10 are gateway meters for this project and the incineration project, measuring electricity exported from the project and incineration project to the grid and imported electricity of the project and incineration project from grid. M11 and M12 are the electricity generation meters for the incineration project.

During this monitoring period, M1, M2, M3, M5 and M6 work properly and are the key meters for monitoring data and emission reduction calculation. Generator IV is under plan, so M4 is not involved.

2. LFG utilization

Temperature (T) and pressure (P) of the landfill gas are required to determine the density of methane in the landfill gas. Therefore, temperature and pressure meters are installed between gas treatment and generators. The accuracy of temperature meter is 1.5%; The accuracy of pressure meter is 2.5%.

At the same location, there is a flow volume meter which has an accuracy of 0.5% and methane percentage analyzer, which has an accuracy of 0.5%.

Please see Fig. 2, the simplified diagram of pre-processing treatment layout.

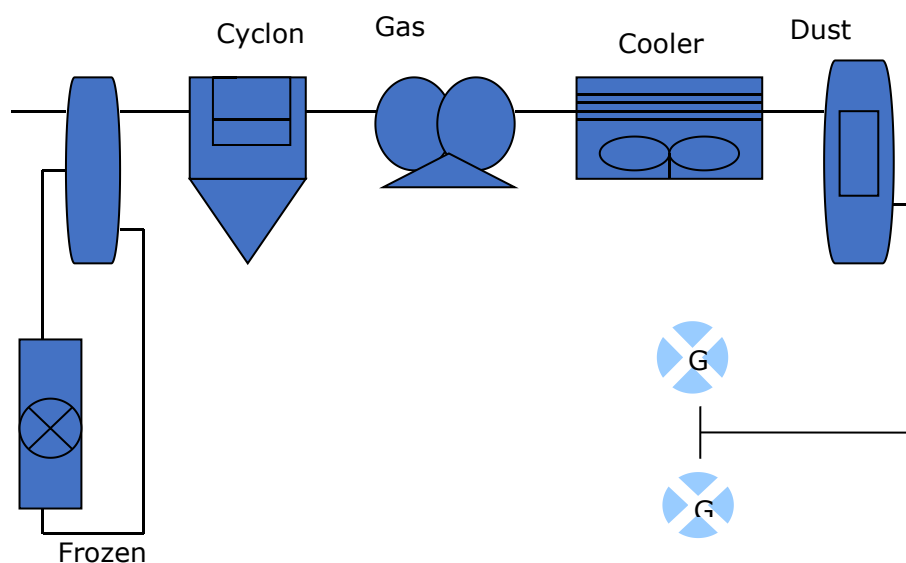


Fig. 2 The simplified diagram of pre-processing treatment layout

3. According to GS requirements, potential mitigation and/or compensation measures from the EIA

In section F of PDD, noise impact and impacts on aquatic environment and air quality can be evaluated.

The project meets the following environment standards during operation:

- Air Quality Standard
- Aquatic Environment standard
- Noise Controlling Standard

The ratio ($R_{LFG,y}$) between the LFG collected and the LFG used within the engines on average each year must be a monitoring parameter. During this monitoring period, there is no other way, such as flaring or venting, to treat the collected LFG besides generating electricity. Therefore, this ratio shall be nearly close to 100%, at least higher than 65%. The actual layout of the entire collection pipelines, which covers from the wells to electricity generators, is considered as the evidence.

4. Data Collection

Data related to LFG

The project owner is responsible for operation monitoring of the main meters and guarantee that the measuring equipment are in good operation and completely sealed.

The main monitoring process is as follows:

I. Methane fraction is measured and recorded hourly by project owner using certified equipment.

Flow volume is continuously measured continuously and recorded hourly by project owner using certified equipment.

Temperature and pressure are measured continuously and recorded hourly.

II. The project owner keeps the records of the main meter's data readings for verification by the DOE.

If inaccuracy of the reading data from the main meter exceeds the allowable tolerance, when the meter operates abnormally during a month or any other unexpected problems occur, the amount of LFG generated shall not be counted.

Data related to Electricity Generation

The project owner and the Grid Company are responsible for operation monitoring of the main meters and guarantee that the measuring equipment are in good operation and completely sealed.

The electricity recorded by the main meter alone suffices for the purpose of billing and emission reduction verification as long as the main meter error is within the allowable tolerance. The main monitoring process is as follows:

III. Electricity generation of each generator is measured continuously by electricity meter and recorded monthly.

Electricity internal consumption is measured continuously by electricity meter and recorded monthly.

IV. The project owner and Grid Company read and check the main meter;

V. The project owner sells the electricity to the Grid Company;

VI. The project owner records the net electricity supplied to the grid electronically;

VII. The project owner keeps the records of the main meter's data readings for verification by the DOE.

5. Calibration

The electricity meters are checked by Electricity Supply Company. After verification and calibration, meters are sealed. Meters related to the electricity generation are jointly inspected and sealed on behalf of the project owner and Grid Company and shall not be accessible by either party except in the presence of the other party or its accredited representatives.

Monitoring Parameter	Monitoring equipment Serial number	Date of calibration	Valid till	Accuracy level	Model Specification	Location	Calibration Entity
EL _{generation}	1524765942 (M1)	15/06/2020	14/06/2021	0.5S	DSZ188	Output of generator	Jiangsu Electrical Institute Measurement Center
	1528634635 (M2)	15/06/2020	14/06/2021	0.5S	DSZ178	Output of generator	Jiangsu Electrical Institute Measurement Center
	1524764230 (M3)	15/06/2020	14/06/2021	0.5S	DSZ188	Output of generator	Jiangsu Electrical Institute Measurement Center
EL _{internal-consumption}	2355946 (M5)	15/06/2020	14/06/2021	2	DT862	Line to the internal consumption	Jiangsu Electrical Institute Measurement Center
	2008-0577129 (M6)	15/06/2020	14/06/2021	2	DT862	Line to the internal consumption	Jiangsu Electrical Institute Measurement Center
LFG _{electricity}	F1: 01965563	22/01/2020	21/01/2021	0.5	CD2A02A1AB 1H2 (0~6)kPa (4~20)m	Between gas pre-treatment and generators	Suzhou Institute of Metrology
		19/01/2021	18/01/2022				
	F2: FD21246A	22/01/2020	21/01/2021	0.5	454FT-12-MT DN200	Between gas pre-treatment and generators	

		19/01/2021	18/01/2022				
W _{CH4}	11112050901 161825249	22/01/2020	21/01/2021	0.5	Gas board- 3200L	NA	Suzhou Institute Metrology
		18/01/2021	17/01/2022				
T	01	03/03/2020	02/03/2021	1.5	WSS (-40~80)°C	Between gas pre-treatment and generators	Suzhou Institute Metrology
		25/02/2021	24/02/2022				
	02	03/03/2020	02/03/2021	1.5	WSS (-40~80)°C	Between gas pre-treatment and generators	
		25/02/2021	24/02/2022				
P	110623626	02/03/2020	01/09/2020	2.5	YE-100 (0~25)kPa	Between gas pre-treatment and generators	Suzhou Institute Metrology
		28/08/2020	27/02/2021				
		25/02/2021	24/08/2021				
	110623628	02/03/2020	01/09/2020	2.5	YE-100 (0~25)kPa	Between gas pre-treatment and generators	
		28/08/2020	27/02/2021				
		25/02/2021	24/08/2021				

6. Data Management

Data were archived at the end of each month using electronic spreadsheets. The electronic files were stored on hard disk. In addition, a printed hard copy is as well archived.

Sales receipts or invoices for the power delivered to the grid are as crosscheck. At the end of each crediting year, a monitoring report is compiled detailing the metering results.

Physical documents were collected and stored by the project owner in a central place, together with the monitoring plan. All data records are kept for 2 years after the end of the crediting period.

SECTION D. DATA AND PARAMETERS

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

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SDG 13

Data/parameter	Regulatory requirements related to landfill gas projects
Unit	/
Description	Regulatory requirements related to landfill gas projects
Source of data	Host country relevant regulations for LFG project activities
Value(s) applied	/
Choice of data or Measurement methods and procedures	/
Purpose of data	The information though recorded annually, is used for changes to the adjustment factor (AF) or directly $MD_{BL,y}$ at renewal of the crediting period
Additional comment	Relevant regulations for LFG project activities shall be updated at renewal of each crediting period. Changes to regulation should be converted to the amount of methane that would have been destroyed/combusted during the year in the absence of the project activity ($MD_{BL,y}$). Project participants should explain how regulations are translated into that amount of gas.

Data/parameter	GWP_{CH4}
Unit	tCO ₂ e/tCH ₄
Description	Global warming potential of CH ₄
Source of data	IPCC
Value(s) applied	01/08/2020-31/12/2020: 25 01/01/2021-21/04/2021: 28
Choice of data or Measurement methods and procedures	IPCC and 'applicability of global warming potential for gold standard for the global goals projects (published on 03/06/2021)'
Purpose of data	Calculation of baseline emissions
Additional comment	Shall be updated according to any future COP/MOP decisions.

Data/parameter	D_{CH4}
Unit	tCH ₄ /m ³ CH ₄
Description	Methane density
Source of data	Default value from "Tool to determine the mass flow of a greenhouse gas in a gaseous stream (v3.0)"
Value(s) applied	At standard temperature and pressure (0 degree Celsius and 1.013 bar) the density of methane is 0.0007168
Choice of data or Measurement methods and procedures	/
Purpose of data	Calculation of baseline emissions
Additional comment	/

Data/parameter	BE_{CH4,SWDS,y}
Unit	tCO ₂ e

Description	Methane generation from the landfill in the absence of the project activity at year y
Source of data	Calculated as per the "Emissions from solid waste disposal sites" (version 07.0)
Value(s) applied	/
Choice of data or Measurement methods and procedures	/
Purpose of data	Calculation of baseline emissions
Additional comment	/

Data/parameter	Φ
Unit	/
Description	Model correction factor to account for model uncertainties
Source of data	Default value from "Emissions from solid waste disposal sites", Version 07.0
Value(s) applied	0.75
Choice of data or Measurement methods and procedures	/
Purpose of data	Calculation of baseline emissions
Additional comment	/

Data/parameter	OX_{top_layer}
Unit	/
Description	Fraction of methane that would be oxidized in the top layer of the SWDS in the baseline
Source of data	Consistent with how oxidation is accounted for in the methodological tool "Emissions from solid waste disposal

	sites"
Value(s) applied	0.1
Choice of data or Measurement methods and procedures	Default value
Purpose of data	Calculation of baseline emissions
Additional comment	/

Data/parameter	F
Unit	/
Description	Fraction of methane in the SWDS gas (volume fraction)
Source of data	IPCC 2006 Guidelines for National Greenhouse Gas Inventories
Value(s) applied	0.5
Choice of data or Measurement methods and procedures	Default value from "Emissions from solid waste disposal sites", Version 07.0
Purpose of data	Calculation of baseline emissions
Additional comment	This factor reflects the fact that some degradable organic carbon does not degrade, or degrades very slowly, under anaerobic conditions in the SWDS. A default value of 0.5 is recommended by IPCC.

Data/parameter	DOC_f
Unit	/
Description	Fraction of degradable organic carbon (DOC) that can decompose
Source of data	IPCC 2006 Guidelines for National Greenhouse Gas Inventories

Value(s) applied	0.5
Choice of data or Measurement methods and procedures	Default value from "Emissions from solid waste disposal sites", Version 07.0
Purpose of data	Calculation of baseline emissions
Additional comment	/

Data/parameter	MCF
Unit	/
Description	Methane correction factor
Source of data	IPCC 2006 Guidelines for National Greenhouse Gas Inventories
Value(s) applied	Based on tool of "Emissions from solid waste disposal sites" Version 07.0, 0.8 is chosen. • 0.8 for unmanaged solid waste disposal sites – deep. This comprises all SWDS not meeting the criteria of managed SWDS and which have depths of greater than or equal to 5 meters.
Choice of data or Measurement methods and procedures	Default value from "Emissions from solid waste disposal sites", Version 07.0
Purpose of data	Calculation of baseline emissions
Additional comment	/

Data/parameter	DOC_j
Unit	/
Description	Fraction of degradable organic carbon (by weight) in the waste type j (weight fraction)
Source of data	IPCC 2006 Guidelines for National Greenhouse Gas

	Inventories (adapted from Volume 5, Tables 2.4 and 2.5)														
Value(s) applied	Apply the following values for the different waste types j: <table border="1"> <thead> <tr> <th>Waste type j</th><th>DOC_j (% wet waste)</th></tr> </thead> <tbody> <tr> <td>Wood and wood products</td><td>43</td></tr> <tr> <td>Pulp, paper and cardboard (other than sludge)</td><td>40</td></tr> <tr> <td>Food, food waste, beverages and tobacco (other than sludge)</td><td>15</td></tr> <tr> <td>Textiles</td><td>24</td></tr> <tr> <td>Garden, yard and park waste</td><td>20</td></tr> <tr> <td>Glass, plastic, metal, other inert waste</td><td>0</td></tr> </tbody> </table> If a waste type, prevented from disposal by the proposed project activity, can not clearly be attributed to one of the waste types in the table above, project participants should choose among the waste types that have similar characteristics that waste type where the values of DOC_j and k_j result in a conservative estimate (lowest emissions), or request a revision of / deviation from this methodology. For example, in the case of empty fruit bunches (EFB), as their characteristics are similar to wood in terms of cellulose, hemi-cellulose, and lignin content, the parameters correspondent of wood should be used.	Waste type j	DOC _j (% wet waste)	Wood and wood products	43	Pulp, paper and cardboard (other than sludge)	40	Food, food waste, beverages and tobacco (other than sludge)	15	Textiles	24	Garden, yard and park waste	20	Glass, plastic, metal, other inert waste	0
Waste type j	DOC _j (% wet waste)														
Wood and wood products	43														
Pulp, paper and cardboard (other than sludge)	40														
Food, food waste, beverages and tobacco (other than sludge)	15														
Textiles	24														
Garden, yard and park waste	20														
Glass, plastic, metal, other inert waste	0														
Choice of data or Measurement methods and procedures	Default value from "Emissions from solid waste disposal sites", Version 07.0														
Purpose of data	Calculation of baseline emissions														
Additional comment	According to 2nd FSR, page 10, wet waste is treated in the propose project														

Data/parameter	k_j
Unit	1/yr
Description	Decay rate for the waste type j
Source of data	IPCC 2006 Guidelines for National Greenhouse Gas Inventories (adapted from Volume 5, Table 3.3)

Value(s) applied		Apply the following default values for the different waste types j:			
Waste type j		Boreal and Temperate (MAT≤20°C)		Tropical (MAT>20°C)	
		Dry (MAP/PET <1)	Wet (MAP/PET >1)	Dry (MAP<1000mm)	Wet (MAP>1000mm)
Slowly degrading	Pulp, paper and cardboard (other than sludge), Textiles	0.04	0.06	0.045	0.07
	Wood, wood products and straw	0.02	0.03	0.025	0.035
Moderately degrading	Other (nonfood) organic putrescible garden, yard and park waste	0.05	0.10	0.065	0.17
Rapidly degrading	Food, food waste, sewage sludge, beverages and tobacco	0.06	0.185	0.085	0.40
		NB: MAT – mean annual temperature, MAP – Mean annual precipitation, PET– potential evapotranspiration. MAP/PET is the ratio between the mean annual precipitation and the potential evapotranspiration. If a waste type, prevented from disposal by the proposed project activity, can not clearly be attributed to one of the waste types in the table above, project participants should choose among the waste types that have similar characteristics that waste type where the values of DOC_j and k_j result in a conservative estimate (lowest emissions), or request a revision of / deviation from this methodology. In the case of empty fruit bunches (EFB), as their characteristics are similar to garden waste, the parameter values correspondent of garden waste shall be used. In case of sludge from pulp and paper industry, a conservative value of 0.03 shall be used for all precipitation and temperature combinations.			
Choice of data or Measurement methods and procedures		/			

Purpose of data	Calculation of baseline emissions
Additional comment	Document in the CDM-PDD the climatic conditions at the SWDS site (temperature, precipitation and, where applicable, evapotranspiration). Use long-term averages based on statistical data, where available. Provide references. The effective reference is not available; therefore, the conservative value is determined for each waste type.

Data/parameter	EF_{grid,OM,y}
Unit	tCO ₂ /MWh
Description	Simple operating margin CO ₂ emission factor of East China Power Grid in year y
Source of data	China Electric Power Yearbook 2011-2013, China Energy Statistics Yearbook 2013, 2006 IPCC Guidelines for National Greenhouse Gas Inventories
Value(s) applied	0.8095
Choice of data or Measurement methods and procedures	Official public data from NDRC
Purpose of data	Calculation of baseline emissions
Additional comment	/

Data/parameter	EF_{grid,BM,y}
Unit	tCO ₂ /MWh
Description	Build margin of East China Power Grid in year y
Source of data	China Electric Power Yearbook 2011-2013, China Energy Statistics Yearbook 2013, 2006 IPCC Guidelines for National Greenhouse Gas Inventories
Value(s) applied	0.6861

Choice of data or Measurement methods and procedures	Official public data from NDRC
Purpose of data	<i>Calculation of baseline emissions</i>
Additional comment	/

Data/parameter	W_{OM}
Unit	%
Description	Weighting of operating margin emissions factor
Source of data	"Tool to calculate the emission factor for an electricity system", Version 05.0
Value(s) applied	25
Choice of data or Measurement methods and procedures	Based on the requirements of "Tool to calculate the emission factor for an electricity system", Version 05.0
Purpose of data	Calculation of baseline emissions
Additional comment	

Data/parameter	W_{BM}
Unit	%
Description	Weighting of build margin emissions factor
Source of data	"Tool to calculate the emission factor for an electricity system", Version 05.0
Value(s) applied	75
Choice of data or Measurement methods and procedures	Based on the requirements of "Tool to calculate the emission factor for an electricity system", Version 05.0
Purpose of data	Calculation of baseline emissions

Additional comment	
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Data/parameter	EF_{grid,CM,y}
Unit	tCO ₂ /MWh
Description	Combined margin CO ₂ emission factor of East China Power Grid in year y
Source of data	China Electric Power Yearbook 2005-2007, China Energy Statistics Yearbook 2007, 2006 IPCC Guidelines for National Greenhouse Gas Inventories
Value(s) applied	0.71694
Choice of data or Measurement methods and procedures	Officially released statistics; publicly accessible and reliable data source
Purpose of data	Calculation of baseline emissions
Additional comment	Parameters of EG _y , Electricity Imports from Connected Electricity Systems to East China Power Grid, FC _{i,y} , NCV _{i,y} , EF _{CO₂,i,y} , Efficiency level of best technology commercially available in China for coal-fired power generation, Efficiency level of best technology commercially available in China for oil and gasfired power generation, CAP are used to calculate EF _{grid,CM,y} in CP2 PDD

Data/parameter	NCV_{CH4}
Unit	TJ/t CH ₄
Description	Net calorific value of methane at reference conditions
Source of data	Technical literature
Value(s) applied	0.0504
Choice of data or Measurement methods and procedures	Default value from ACM0001-V19.0

Purpose of data	Calculation of baseline emissions
Additional comment	/

Data / Parameter	$R_{LFG,y}$
Unit	%
Description	The ratio between the LFG collected and the LFG used within the engines on average each year
Source of data	The actual layout of the entire collection pipelines
Value(s) applied	100%
Measurement methods and procedures	/
Monitoring frequency	Annually
QA/QC procedures	If there is no other way, such as flaring or venting, to treat the collected LFG besides generating electricity, this ratio can be nearly close to 100%, at least higher than 65%.
Purpose of data	Calculation of baseline emissions
Additional comment	The actual layout of the entire collection pipelines, which covers from the well to electricity generator, and to flare which is used for emergency purpose. No emergency was happened during this monitoring period and the flare was not used. All the collected landfill gas has been used to generate electricity.

D.2. Data and parameters monitored

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SDG 8 and Safeguarding Principle 2.2, 6.1

Data / Parameter	Employment
Unit	/
Description	Number of people employed and fulfilment of labour

	standards
Source of data	Name list provided by HR
Value(s) applied	8 fixed jobs and 12 temporary jobs
Measurement methods and procedures	People engaged during the fiscal year is recorded in the accounting system of the plant.
Monitoring frequency	Annually
QA/QC procedures	Payrolls of these employees are provided as evidence for contribution in employment of local people
Purpose of data	SDG 8 and safeguarding principle 2.2, 6.1 monitoring
Additional comment	/

Data / Parameter	Livelihood of the poor										
Unit	/										
Description	The project supplies income to workers involved										
Source of data	Accounting report by human resource office of the plant										
Value(s) applied	The monthly average salary provided by this project is higher than the lowest salary level of Jiangsu Province. <table border="1"> <thead> <tr> <th>Year</th><th>Average monthly salary(RMB)</th><th>Lowest monthly salary level of Jiangsu Province (RMB)</th></tr> </thead> <tbody> <tr> <td>2020</td><td>9,027</td><td>2,280</td></tr> <tr> <td>2021</td><td>8,550</td><td>2,280</td></tr> </tbody> </table> The project's contribution to the local people also includes caring for disabled people, sanitation workers, and promoting environmental protection knowledge to elementary school students.		Year	Average monthly salary(RMB)	Lowest monthly salary level of Jiangsu Province (RMB)	2020	9,027	2,280	2021	8,550	2,280
Year	Average monthly salary(RMB)	Lowest monthly salary level of Jiangsu Province (RMB)									
2020	9,027	2,280									
2021	8,550	2,280									
Measurement methods and procedures	Recorded by HR										
Monitoring frequency	Annually										
QA/QC procedures	Pay roll of these employees is provided as evidence for contribution in employment of local people										
Purpose of data	SDG 8 and safeguarding principle 2.2, 6.1 monitoring										

Additional comment	/
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SDG 7 and SDG 13

Data / Parameter	EL_{LFG}
Unit	MWh
Description	Net amount of electricity generated using LFG
Source of data	Calculated
Value(s) applied	01/08/2020-31/12/2020: 8,364.773 01/01/2021-21/04/2021: 3,955.030 Total: 12,319.803
Measurement methods and procedures	$EL_{LFG} = EL_{\text{generation}} - EL_{\text{internal consumption}}$
Monitoring frequency	Recorded monthly
QA/QC procedures	Related Electricity meters are subject to regular (in accordance with stipulation of the meter supplier) maintenance and testing to ensure accuracy
Purpose of data	Calculation of baseline emissions
Additional comment	Also used for SDG 7

Data / Parameter	EL_{generation}
Unit	MWh
Description	Electricity generation from the generator in the year y
Source of data	Measured by electricity meter (M1, M2, M3)
Value(s) applied	01/08/2020-31/12/2020: 9,150.280 01/01/2021-21/04/2021: 4,274.540 Total: 13,424.820
Measurement methods and procedures	It is monitored continuously and recorded on a monthly basis. The project owner read and record readings of meters M1, M2 and M3 at 24:00 of last day of each month during this monitoring period.
Monitoring frequency	Continuously
QA/QC procedures	This electricity is measured by electricity meter for each

	generator. Data measured by meters will be cross-checked by electricity receipts. These instruments are considered as critical instruments in the QA/QC procedure. These meters are calibrated and maintained by power supply company.
Purpose of data	Calculation of baseline emissions
Additional comment	/

Data / Parameter	EL internal consumption
Unit	MWh
Description	Electricity imported from the grid in the year y. It includes the electricity consumption of the gas collection system.
Source of data	Measured by electricity meter (M5, M6)
Value(s) applied	1/8/2020-31/12/2020: 785.507 1/1/2021-21/4/2021: 319.510 Total: 1,105.017
Measurement methods and procedures	It is monitored continuously and recorded on a monthly basis
Monitoring frequency	Continuously
QA/QC procedures	This electricity is measured by electricity meter for each generator. Data measured by meters will be cross-checked by electricity receipts. These meters are calibrated and maintained by power supply company.
Purpose of data	Calculation of project emissions
Additional comment	/

SDG 13

Data / Parameter	LFG electricity,y
Unit	m ³
Description	Amount of landfill gas combusted in power plant at Normal Temperature and Pressure
Source of data	Monthly records

Value(s) applied	1/8/2020-31/12/2020: 7,477,979 1/1/2021-21/4/2021: 2,967,378 Total:10,445,357
Measurement methods and procedures	Flow meter
Monitoring frequency	Continuously measured, recorded every hour in daily record, accumulated every month and year in the monthly record.
QA/QC procedures	This amount of landfill gas is measured by flow meter. The flow meter is calibrated by national standard.
Purpose of data	Calculation of baseline emissions
Additional comment	/

Data / Parameter	W_{CH4}
Unit	m ³ CH ₄ /m ³ LFG
Description	Methane fraction in the landfill gas
Source of data	Monthly records of methane fraction measured by methane analyzer.
Value(s) applied	The hourly methane fraction is in the daily record, and averaged each month and each year in the monthly record. 1/8/2020-31/12/2020: 0.4001 1/1/2021-21/4/2021: 0.2479
Measurement methods and procedures	Methane Analyzer
Monitoring frequency	Measured and recorded every hour in the daily record, averaged in monthly record
QA/QC procedures	This methane fraction in the landfill gas is measured by the methane analyzer. This instrument is calibrated according national standard.
Purpose of data	Calculation of baseline emissions
Additional comment	/

Data / Parameter	T
------------------	----------

Unit	°C
Description	Temperature of the landfill gas
Source of data	Daily records of temperature measured by temperature meter. In a certain period (a year or a month), the highest hourly value for temperature is used for calculation. This is also conservative.
Value(s) applied	The hourly temperature in the daily record. 1/8/2020-31/12/2020: 38°C (311.15K) 1/1/2021-21/4/2021: 22°C (295.15K)
Measurement methods and procedures	Temperature meter
Monitoring frequency	Continuously measured and recorded every hour in the daily record
QA/QC procedures	The temperature is measured by temperature meter. And the temperature meters (T1, T2) are calibrated by national standard.
Purpose of data	Calculation of baseline emissions
Additional comment	/

Data / Parameter	P
Unit	KPa
Description	Pressure of the landfill gas
Source of data	Daily record of pressure measured by pressure meter. In a certain period (a year or a month), the lowest hourly value for pressure is used for calculation. This is also conservative.
Value(s) applied	The hourly pressure in the daily record. 1/8/2020-31/12/2020: 108.025 KPa 1/1/2021-21/4/2021: 108.025 KPa
Measurement methods and procedures	Pressure meter
Monitoring frequency	Continuously measured and recorded every hour in the daily record
QA/QC procedures	The pressure is measured by pressure meter. The pressure meters (P1, P2) are calibrated by national

	standard.
Purpose of data	Calculation of baseline emissions
Additional comment	/

Data / Parameter	Operation of the energy plant
Unit	hours
Description	Operation of the energy plant
Source of data	This operation hour is measured by TEM EVO System and recorded in monthly record.
Value(s) applied	In this monitoring period, the operation hours of each generator are as follows: 3# (01/08/2020 to 21/04/2021): 5,990 4# (01/08/2020 to 21/04/2021): 3,494 5# (01/08/2020 to 21/04/2021): 6,083
Measurement methods and procedures	TEM EVO System
Monitoring frequency	Hourly and accumulated monthly
QA/QC procedures	This operation hour is measured by TEM EVO System. This instrument is considered as critical instruments in the QA/QC procedure.
Purpose of data	This is monitored to ensure that methane destruction is claimed for methane used in electricity plant when it is operational.
Additional comment	/

Data / Parameter	R_{LFG,y}
Unit	%
Description	The ratio between the LFG collected and the LFG used within the engines on average each year
Source of data	The actual layout of the entire collection pipelines
Value(s) applied	100%

Measurement methods and procedures	/
Monitoring frequency	Annually
QA/QC procedures	If there is no other way, such as flaring or venting, to treat the collected LFG besides generating electricity, this ratio can be nearly close to 100%, at least higher than 65%.
Purpose of data	Calculation of baseline emissions
Additional comment	The actual layout of the entire collection pipelines, which covers from the well to electricity generator, and to flare which is used for emergency purpose. No emergency was happened during this monitoring period and the flare was not used. All the collected landfill gas has been used to generate electricity.

Data / Parameter	Management of SWDS
Unit	/
Description	Management of SWDS
Source of data	Use different sources of data - Original design of the landfill - Technical specifications for the management of the SWDS - Local or national regulations
Value(s) applied	/
Measurement methods and procedures	Refer to "Management Manual of Qizi Mountain Landfill"
Monitoring frequency	Annually
QA/QC procedures	/
Purpose of data	Calculation of baseline emissions
Additional comment	

Data / Parameter	Laws and regulations about waste management system in China
Unit	/
Description	Relevant laws and regulations about solid waste management system in China will be monitored yearly. When there are relevant changes, the baseline scenario or monitor plan will change accordingly.
Source of data	Project participants
Value(s) applied	/
Measurement methods and procedures	/
Monitoring frequency	/
QA/QC procedures	Regular follow-up of law and regulations by project participants (e.g., governmental publications, official communications, official journal, conferences)
Purpose of data	/
Additional comment	

Other parameters from the approved renewed PDD

Data / Parameter	Continuous Input & Grievance Expression Methods
Unit	/
Description	Methods for continuous input & grievance expression including: • Continuous Input/Grievance Expression Process Book • Telephone access • Internet/email access
Source of data	Expression book; telephone; email
Value(s) applied	The project information, contact person, email and telephone were published in local village, residence and

	company noticeboard. People could express their comments, grievance, and advice through telephone or writing. Besides, the project information was published on the web of https://www.southpole.com/gold-standard-and-other-stakeholder-consultations. Everyone could see this project. People could also put their comments directly to GS through the email of info@goldstandard.org. Grievance book in the office of the plant. Project information published in local residence. Project information on company noticeboard. During this monitoring period, no comments were given on this project.
Measurement methods and procedures	/
Monitoring frequency	Each verification
QA/QC procedures	/
Purpose of data	/
Additional comment	/

D.3. Comparison of monitored parameters with last monitoring period

>>

Not applicable for non- Community Service Activities.

D.4. Implementation of sampling plan

>>

N/A

SECTION E. CALCULATION OF SDG IMPACTS

E.1. Calculation of baseline value or estimation of baseline situation of each SDG Impact

>>

SDG 13

$$BE_y = BE_{CH_4,y} + BE_{EC,y} \quad (1)$$

Parameter	Description	1/8/2020-31/12/2020	1/1/2021-21/4/2021	Total	Unit
BE_y	Baseline emission in this monitoring period	51,937	16,260	68,197	tCO ₂
$BE_{EC,y}$	Baseline emission for electricity in year y	6,757	3,156	9,913	tCO ₂
$BE_{CH_4,y}$	Baseline emissions of methane from the SWDS in year y	45,180	13,104	58,284	tCO ₂

$$BE_{EC,y} = \sum_k EC_{BL,k,y} \times EF_{EL,k,y} \times (1 + TDL_{k,y}) \quad (2)$$

The calculation result of $BE_{EC,y}$ is as follows.

Parameter	Description	1/8/2020-31/12/2020	1/1/2021-21/4/2021	Unit
$BE_{EC,y}$	Baseline emission for electricity in year y	6,757	3,156	tCO ₂
$EC_{BL,k,y}$	Quantity of electricity that would be consumed by the baseline electricity consumption source k in year y. In this project, the equivalent electricity is from ECPG.	9,150.28	4,274.54	MWh
$EF_{EL,k,y}$	Emission factor for electricity generation for source k in year y (tCO ₂ /MWh). In this project, it is EF of ECPG. $EF_{EL,k,y} = EF_{grid,CM,y}$	0.71694	0.71694	tCO ₂ /MWh
$TDL_{k,y}$	Average technical transmission and distribution losses for providing electricity to source k in year y	3%	3%	/

$$BE_{CH_4,y} = ((1 - OX_{top_layer}) \times F_{CH_4,PJ,y} - F_{CH_4,BL,y}) \times GWP_{CH_4} \quad (3)$$

The calculation result of $BE_{CH_4,y}$ is as follows.

Parameter	Description	1/8/2020-31/12/2020	1/1/2021-21/4/2021	Unit
$BE_{CH_4,y}$	Baseline emissions of methane from the SWDS in year y	45,180	13,104	tCO ₂

OX_{top_layer}	Fraction of methane in the LFG that would be oxidized in the top layer of the SWDS in the baseline	0.1	0.1	/
$F_{CH_4,PJ,y}$	Amount of methane in the LFG which is flared and/or used in the project activity in year y	2,008	520	tCH ₄
$F_{CH_4,BL,y}$	Amount of methane in the LFG that would be flared in the baseline in year y. No requirement in the baseline, therefor, it is 0.	0	0	tCH ₄
GWP_{CH_4}	Global warming potential of CH ₄	25	28	tCO ₂ /tCH ₄

$$F_{CH_4,PJ,y} = F_{CH_4,flared,y} + F_{CH_4,EL,y} \quad (4)$$

Parameter	Description	1/8/2020-31/12/2020	1/1/2021-21/4/2021	Unit
$F_{CH_4,flared,y}$	Amount of methane in the LFG which is destroyed by flaring in year y	0	0	tCH ₄
$F_{CH_4,EL,y}$	Amount of methane in the LFG which is used for electricity generation in year y.	2,008	520	tCH ₄

The amount of methane is calculated according to the record of landfill gas pressure, temperature, and methane fraction. The calculation is shown the following equation (5).

$$F_{CH_4,EL,y} = LFG_{electricity,y} * W_{CH_4} * P_1 * T_0 * p_0 / (P_0 * T_1) \quad (5)$$

Parameter	Description	1/8/2020-31/12/2020	1/1/2021-21/4/2021	Unit
$F_{CH_4,EL,y}$	Amount of methane in the LFG which is used for electricity generation in year y.	2,008	520	tCH ₄
$LFG_{electricity}$	Amount of landfill gas combusted in power plant	7,477,979	2,967,378	m ³
W_{CH_4}	Methane fraction in the landfill gas	40.01%	24.79%	m ³ CH ₄ /m ³ LFG
P_1	Pressure of the landfill gas	108.025	108.025	kPa

T ₀	Temperature under standard condition, 0 degree Celsius	273.15	273.15	K
ρ ₀	Density of methane under standard condition	0.0007168	0.0007168	t/m ³
P ₀	Pressure under standard condition	101.3	101.3	kPa
T ₁	Temperature of collected landfill gas	311.15	295.15	K

SDG 7

Baseline situation is 0 MWh.

SDG 8

No persons employed and no trainings provided to the employed.

E.2. Calculation of project value or estimation of project situation of each SDG Impact

>>

SDG 13

$$PE_y = PE_{EC,y} + PE_{FC,y} \quad (6)$$

Parameter	Description	Data	Unit
PE _y	Project emissions in year y	951	tCO ₂
PE _{EC,y}	Emissions from consumption of electricity due to the project activity in year y	951	tCO ₂
PE _{FC,y}	Emissions from consumption of fossil fuel due to the project activity, for purpose other than electricity generation, in year y. There is no fossil fuel in the project.	0	tCO ₂
PE _{DT,y}	Emissions from the distribution of compressed/liquefied LFG using trucks, in year y. No distribution of compressed/liquefied FLG using trucks in the project.	0	tCO ₂

$$PE_{EC,y} = \sum_j EC_{PJ,j,y} \times EF_{EL,j,y} \times (1 + TDL_{j,y}) \quad (7)$$

The calculation result of PE_{EC,y} is as follows.

Parameter	Description	1/8/2020-31/12/2020	1/1/2021-21/4/2021	Unit
-----------	-------------	---------------------	--------------------	------

$PE_{EC,y}$	Emissions from consumption of electricity due to the project activity in year y	676	275	tCO ₂
$EC_{PJ,j,y}$	Quantity of electricity consumed by the project electricity consumption source j in year y	785.507	319.510	MWh
$EF_{EL,j,y}$	Emission factor for electricity generation for source j in year y	0.71694	0.71694	tCO ₂ /MWh
$TDL_{j,y}$	Average technical transmission and distribution losses for providing electricity to source j in year y	20%	20%	/

SDG7

12,320 MWh of renewable energy provided by the project.

$$EL_{LFG} = EL_{\text{generation}} - EL_{\text{internal consumption}} \quad (8)$$

Parameter	Description	Data	Unit
EL_{LFG}	Net amount of electricity generated using LFG	12,320	MWh
$EL_{\text{generation}}$	Electricity generation from the generator in the year y	13,424.820	MWh
$EL_{\text{internal consumption}}$	Electricity imported from the grid in the year y	1,105.017	MWh

SDG 8

8 fixed and 12 temporary employment provided and trainings provided to the employed.

E.3. Calculation of leakage

>>

N/A

E.4. Calculation of net benefits or direct calculation for each SDG Impact

SDG	SDG Impact	Baseline estimate	Project estimate	Net benefit
3	Reduced indoor air pollution	N/A	Air quality complies with relevant national	Air quality complies with relevant national

			standard GB 16297-1996 and GB 14554-1993	standard GB 16297-1996 and GB 14554-1993
4	Skill development	0	3 trainings	3 trainings
7	MWh of renewable energy generated	0	12,320 MWh	12,320 MWh
8	Number of jobs created	0	8 fixed jobs and 12 temporary jobs	8 fixed jobs and 12 temporary jobs
13	Emissions Reductions	68,197 tCO ₂	951 tCO ₂	67,246 tCO ₂

E.5. Comparison of actual SDG Impacts with estimates in approved PDD

SDG	Values estimated in ex ante calculation of approved PDD for this monitoring period	Actual values ¹ achieved during this monitoring period
7	18,076 MWh	12,320 MWh
8	N/A	8 fixed jobs and 12 temporary jobs
13	86,766 tCO ₂	67,246 tCO ₂

E.5.1. Explanation of calculation of value estimated ex ante calculation of approved PDD for this monitoring period

>>

SDG 13

The ERs in the registered renewed PDD is:

2020: 122,804 tCO₂

1/1/2021-21/4/2021: 35,430 tCO₂

This monitoring period is from 01/08/2020-21/04/2021. From 01/08/2020 to 31/12/2020, there are 153 days. Therefore, the ex-ante estimation for this monitoring period is: $122,804 \times 153 / 366 + 35,430 = 86,766$ tCO₂

¹ Whenever emission reductions are capped, both the original and capped values used for calculations must be transparently reported. Use brackets to denote original values.

SDG 7

In the registered renewed PDD, the exported electricity is estimated to be 24,992 MWh a year on average. This monitoring period is from 01/08/2020-21/04/2021, there are 264 days. Therefore, the ex-ante estimation for this monitoring period is: $24,992 * 264 / 365 = 18,076$ MWh

E.6. Remarks on increase in achieved SDG Impacts from estimated value in approved PDD

>>

No increase in achieved SDG Impacts from estimated value in approved PDD for the project during the monitoring period.

SECTION F. SAFEGUARDS REPORTING

>>

Principles	Mitigation Measures added to the Monitoring Plan
Principle 3.1, 9.4	Refer to B.7.1 AQ _y
Principle 3.1, 9.4	Refer to B.7.1 WQ _y
Principle 3.1, 9.4	Refer to B.7.1 Other pollutant
Principle 2.2, 6.1	Refer to B.7.1 Employment
Principle 2.2, 6.1	Refer to B.7.1 Livelihood of the poor
Principle 2.2, 6.1	Refer to B.7.1 Human and institutional capacity

Besides GHG emission reductions, implementation of the project also has other advantages over baseline scenario in terms of impacts on air quality. By installation of the landfill gas processing unit, the emissions of H₂S, NH₃ and other gases are prevented. The wastewater from the project are properly treated. Therefore, no significant change comparing with baseline, in terms of water quality and quantity. No significant change comparing with baseline for noise.

The project meets the following environment standards during operation:

- Air Quality Standard (GB16297-1996 and GB 14554-1993)
- Aquatic Environment standard (GB/T14848-2017)
- Noise Controlling Standard (GB12348-2008)

The monitoring and reporting are as below.

Data / Parameter	Employment
Unit	/
Description	Number of people employed and fulfilment of labour standards
Source of data	Name list provided by HR
Value(s) applied	8 fixed jobs and 12 temporary jobs
Measurement methods	People engaged during the fiscal year is recorded in the

and procedures	accounting system of the plant.
Monitoring frequency	Annually
QA/QC procedures	Payrolls of these employees are provided as evidence for contribution in employment of local people
Purpose of data	SDG 8 and safeguarding principle 2.2, 6.1 monitoring
Additional comment	/

Data / Parameter	Livelihood of the poor											
Unit	/											
Description	The project supplies income to workers involved											
Source of data	Accounting report by human resource office of the plant											
Value(s) applied	The monthly average salary provided by this project is higher than the lowest salary level of Jiangsu Province. <table><tr><td>Year</td><td>Average monthly salary(RMB)</td><td>Lowest monthly salary level of Jiangsu Province (RMB)</td></tr><tr><td>2020</td><td>9,027</td><td>2,280</td></tr><tr><td>2021</td><td>8,550</td><td>2,280</td></tr></table> The project's contribution to the local people also includes caring for disabled people, sanitation workers, and promoting environmental protection knowledge to elementary school students.			Year	Average monthly salary(RMB)	Lowest monthly salary level of Jiangsu Province (RMB)	2020	9,027	2,280	2021	8,550	2,280
Year	Average monthly salary(RMB)	Lowest monthly salary level of Jiangsu Province (RMB)										
2020	9,027	2,280										
2021	8,550	2,280										
Measurement methods and procedures	Recorded by HR											
Monitoring frequency	Annually											
QA/QC procedures	Pay roll of these employees is provided as evidence for contribution in employment of local people											
Purpose of data	SDG 8 and safeguarding principle 2.2, 6.1 monitoring											
Additional comment	/											

Data / Parameter	Human and institutional capacity
Unit	/

Description	The project organizes trainings for the staff on the technology and the monitoring of the plant operation, and the emergency and safety procedures, etc.														
Source of data	Training records														
Value(s) applied	The trainings in this monitoring period are summarized as follows: <table><tr><td>No.</td><td>Date</td><td>Content</td></tr><tr><td>1</td><td>09/2020</td><td>Engine cleaning and protection</td></tr><tr><td>2</td><td>12/2020</td><td>Working standards of staff on duty</td></tr><tr><td>3</td><td>03/2021</td><td>electric generators start and stop steps</td></tr></table>			No.	Date	Content	1	09/2020	Engine cleaning and protection	2	12/2020	Working standards of staff on duty	3	03/2021	electric generators start and stop steps
No.	Date	Content													
1	09/2020	Engine cleaning and protection													
2	12/2020	Working standards of staff on duty													
3	03/2021	electric generators start and stop steps													
Measurement methods and procedures	For each training, the training content are recorded, and each person attended signed the file.														
Monitoring frequency	Annually														
QA/QC procedures	/														
Purpose of data	Safeguarding principle 2.2, 6.1 monitoring														
Additional comment	/														

Data / Parameter	AQ_v
Unit	N/A
Description	Air quality
Source of data	Test Report by authorized third party
Value(s) applied	On 04/03/2020, the air condition of each generator was monitored by Kang Da Testing Technology (Jiangsu) Co., Ltd. and the monitoring results met with standard of GB16297-1996 "Comprehensive emission standard of air pollutants" and GB 14554-1993 "Emission standards for odor pollutants". On 15/11/2021, the air condition of each generator was monitored by Guo Ce Testing Technology (Jiang Su) Co., Ltd. and the monitoring results met with standard of GB16297-1996 "Comprehensive emission standard of air pollutants" and GB 14554-1993 "Emission standards for odor pollutants".
Measurement methods and procedures	Monitored by third party

Monitoring frequency	Annually
QA/QC procedures	Monitored by third party
Purpose of data	Safeguarding principle 3.1, 9.4 monitoring
Additional comment	/

Data / Parameter	WQ_v
Unit	N/A
Description	Negative water quality effects that are prevented by processing units
Source of data	Test Report of Environment Check Accept from Local Environment Protection Agency.
Value(s) applied	On 22/05/2020, the underground water was monitored by Kang Da Testing Technology (Jiangsu) Co., Ltd, and the water complied with "GB/T14848-2017 quality standard of underground water". On 23/12/2021, the underground water was monitored by Guo Ce Testing Technology (Jiang Su) Co., Ltd., and the water complied with "GB/T14848-2017 quality standard of underground water".
Measurement methods and procedures	Monitored by third party. The landfill leachate was collected properly and sent to nearby processing facility by pipes directly.
Monitoring frequency	Annually
QA/QC procedures	The water quality was monitored by qualified third party.
Purpose of data	Safeguarding principle 3.1, 9.4 monitoring
Additional comment	/

Data / Parameter	Other pollutant
Unit	N/A
Description	Noise impacts that are prevented by several approaches
Source of data	Test Report of Environment Check Accept from Local Environment Protection Agency
Value(s) applied	On 19/06/2020, the boundary noise (both daily and

	night) was monitored by Kang Da Testing Technology (Jiang Su) Co., Ltd. and it complied with GB12348-2008 Industrial Enterprise Boundary Noise Standard. On 31/12/2021, the boundary noise (both daily and night) was monitored by Guo Ce Testing Technology (Jiang Su) Co., Ltd. and it complied with GB12348-2008 Industrial Enterprise Boundary Noise Standard.
Measurement methods and procedures	Monitored by third party
Monitoring frequency	Annually
QA/QC procedures	Monitored by qualified third party.
Purpose of data	Safeguarding principle 3.1, 9.4 monitoring
Additional comment	/

SECTION G. STAKEHOLDER INPUTS AND LEGAL DISPUTES

G.1. List all Inputs and Grievances which have been received via the Continuous Input and Grievance Mechanism together with their respective responses/mitigations.

>>

The PO has implemented continuous input / grievance mechanism expression process, as discussed with local stakeholders. No inputs/grievances received for the project during this monitoring period. The details about the continuous Input and Grievance Mechanism, refer to parameter "Continuous Input & Grievance Expression Methods" in section D.2.

Method	Include all details of Chosen Method (s) so that they may be understood and, where relevant, used by readers.
Continuous Input / Grievance Expression Process Book (mandatory)	Grievance expression book in the office of the plant
GS Contact (mandatory)	help@goldstandard.org
Other	Telephone access +86-512-66316090 (project owner) +86 158 1052 7065 (GS expert) Local stakeholders can call the working staff of the project owner and GS expert to express their comments,

suggestion and complaint.
 Internet/email access
 lizhihua@ebchinaintl.com.cn (for project owner)
 annyta.luo@sustain-cert.com (for GS expert)
 Local stakeholders can send email to the project owner
 and GS expert to express their comments, suggestion and
 complaint.

G.2. Report on any stakeholder mitigations that were agreed to be monitored.

>>

No inputs/grievances were received for the project during the monitoring period.

G.3. Provide details of any legal contest that has arisen with the project during the monitoring period

>>

No legal contest or dispute that has arisen with the project during the monitoring period.

Revision History

Version	Date	Remarks
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1.1	14 October 2020	Hyperlinked section summary to enable quick access to key sections Improved clarity on Key Project Information Section for POA monitoring Forward action request section Improved Clarity on SDG contribution/SDG Impact term used throughout Clarity on safeguard reporting Clarity on design changes Leakage section added for VER/CER projects Addition of Comparison of monitored parameters with last monitoring period Provision of an accompanying Guide to help the user understand detailed rules and requirements
1.0	10 July 2017	Initial adoption