JCM Project Design Document Form

A. Project description

A.1. Title of the JCM project

Reduction of Energy Consumption by Introducing an Energy-Efficient Waste Paper Processing System into a Packaging Paper Factory in Bekasi, West Java

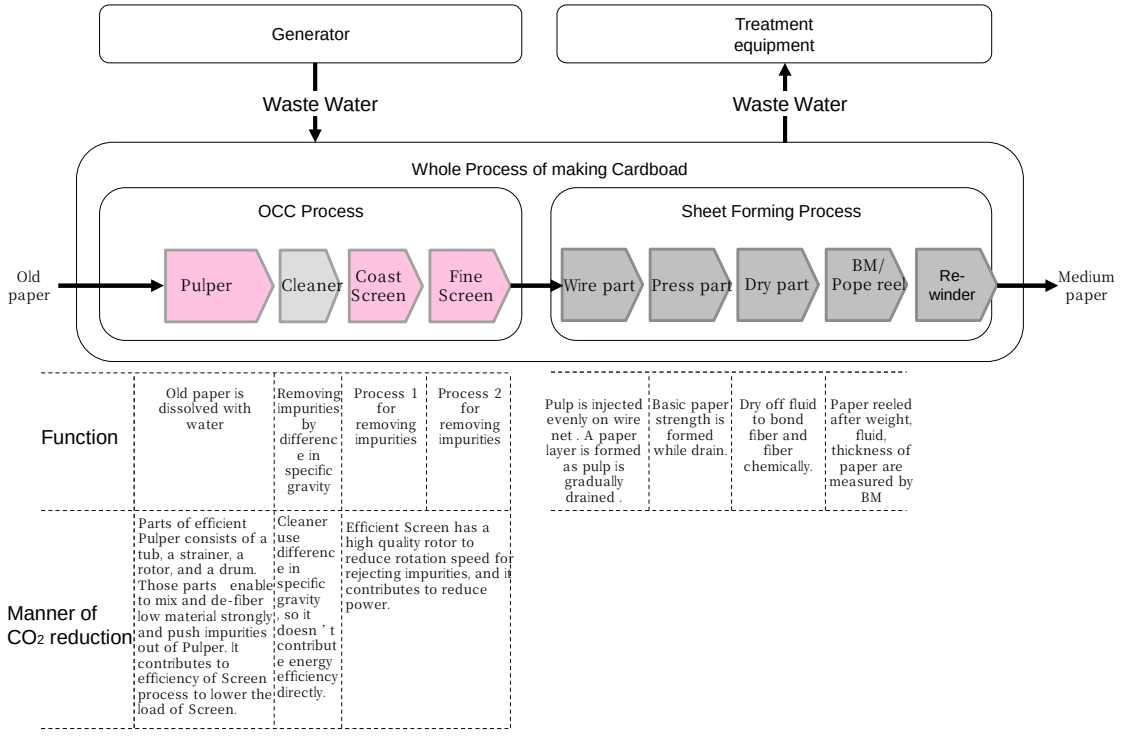
A.2. General description of project and applied technologies and/or measures

A corrugated carton production process consists of the following two main processes: old corrugated cartons (OCC) process and sheet forming process. This project aims to reduce electric power use in the former process.

To realize the reduction of power use(about 10%) per ton produced and contribute to CO_2 reduction by introducing the technology of a high-efficient system into the OCC process to be newly built in PT FAJAR SURYA WISESA of Indonesia.

In the OCC process, the material of sheet paper is made by removing foreign substances, using multiple machines from ground and then liquefied old paper with water. This process is composed of 4 components based 30 equipments. The use of devices of high machine efficiency makes the motor power of each device small, realizing an approximately 10% energy saving.

OCC process in whole process



A.3. Location of project, including coordinates

Country	Indonesia
Region/State/Province etc.:	Jawa Barat/ Bekasi
City/Town/Community etc:	Cikarang Bar/ Kalijaya/ Jl. Kampung Gardu Sawah No. 1
Latitude, longitude	16°16'20"S 107°07'22"E

A.4. Name of project participants

The Republic of Indonesia	PT FAJAR SURYA WISESA Tbk.
Japan	KANEMATSU CORPORATION

A.5. Duration

Starting date of project operation	1 April 2017
Expected operational lifetime of project	12 years

A.6. Contribution from Japan

The proposed project was partially supported by the Ministry of the Environment, Japan (MOEJ) through the Financing Programme for JCM Model projects, which provided financial support of less than half of the initial investment for the projects in order to acquire JCM credits. The Japanese project participant transfers the technology through conducting the training on operation and maintenance of newly installed equipment through this project.

B. Application of an approved methodology(ies)

B.1. Selection of methodology(ies)

Selected approved methodology No.	ID_AM012
Version number	1.0

B.2. Explanation of how the project meets eligibility criteria of the approved methodology

Eligibility criteria	Descriptions specified in the methodology	Project information
Criterion 1	The specific energy consumption of the project OCC line guaranteed by the manufacture is, at the minimum,	Project specific energy consumption (0.120 MWh/ton) guaranteed by Aikawa Iron Works is less than that of Line 8 (0.188 MWh/ton).

	less than the reference specific energy consumption set for the project factory.	
Criterion 2	The paper yield of the project OCC line(s) guaranteed by the manufacture is equal to or more than 90% at the range of designed production capacity.	The guaranteed paper yield is 92% in the project OCC line.
Criterion 3	Production capacity of the project OCC line is no more than the twice as large as the capacity of the existing OCC line	Project capacity (1,400 ton/day) is less than the twice as large as 1,150 ton/day, which is the maximum capacity of existing OCC lines (i.e., line 5).
Criterion 4	Plan for regular adjustment, replacement, and improvements of project OCC line(s) are prepared (at least once every six months).	Aikawa Iron Works has continued after follow every 3 months for decades and they intend to continue that.

C. Calculation of emission reductions

C.1. All emission sources and their associated greenhouse gases relevant to the JCM project

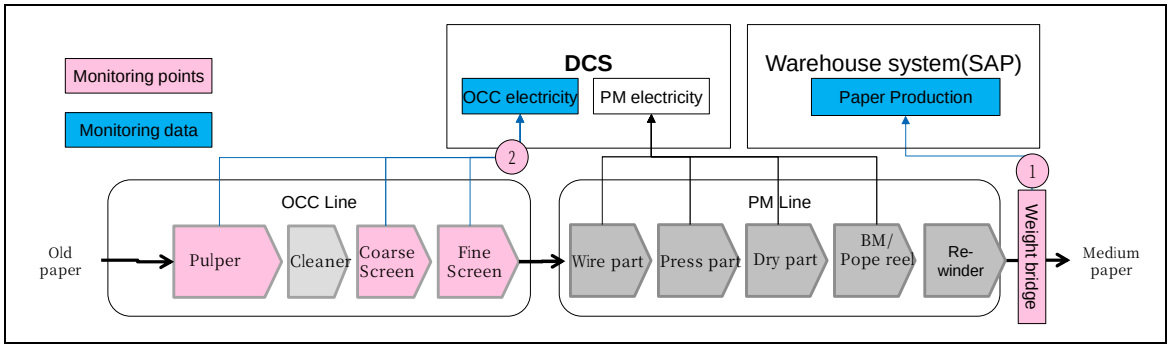
Reference emissions	
Emission sources	GHG type
Electricity consumption by the reference OCC line(s)	CO_2
Project emissions	
Emission sources	GHG type
Electricity consumption by the project OCC line(s)	CO_2

C.2. Figure of all emission sources and monitoring points relevant to the JCM project

Monitoring Points in Whole Process

For monitoring, Fajar use energy management “DCS” and reporting system “SAP”.

At this factory, Line8 line has its energy monitoring room. It monitors electricity consumption of each facility of the OCC line every hour. Fajar monitor Electricity and Production weight. For electricity, data of Pulper, Coarse Screen and Fine Screen are only measured. Production weight is measured by weight bridge at the last process. Both Electricity and Production (Gross) are automatically monitored.



C.3. Estimated emissions reductions in each year

Year	Estimated Reference emissions (tCO_{2e})	Estimated Project Emissions (tCO_{2e})	Estimated Emission Reductions (tCO_{2e})
2017	45,865.6	29,328.5	16,536.2
2018	53,314.1	34,091.9	19,222.2
2019	53,314.1	34,091.9	19,222.2
2020	53,314.1	34,091.9	19,222.2
Total (tCO2e)	205,807.9	131,604.2	74,202.8

D. Environmental impact assessment

Legal requirement of environmental impact assessment for the proposed project	YES

E. Local stakeholder consultation

E.1. Solicitation of comments from local stakeholders

Local Stakeholder Consultation (LSC) had been held in 20th December, 2016, which had invited several stakeholder; Staff of Fajar Paper, Indonesian Government and Indonesian Pulp and Paper Association.

Date/Location

Date: 20 December, 2016
Venue: Mill site of PT FAJAR SURYA WISESA Tbk.

LSC Agenda

10:00~10:15: Time adjustment
10:15~10:20: Opening remarks by Mr. Roy of Fajar
10:20~10:30: Introduction of relative entities
10:30~10:50: JCM introduction by Yoshimoto of NRI
10:50~11:00: JCM in Indonesia by Ms. Keni of JCM secretariat
11:00~11:20: Introduction of Fajar and Line 8 by Mr. Hardy of Fajar
11:20~11:40: JCM boundary and Equipment of JCM project by Mr. Aoshima of Aikawa Iron Works
11:40~11:45: Q&A
11:45~11:50: Closing by Mr. Asami of Kanematsu
12:00~13:00:Lunch organized by Fajar
13:00~14:00:Mill site tour organized by Fajar

List of Participants,

Organization
FajarPaper
Kanematsu
Aikawa Iron Works
Nomura Research Institute
SUNCOSMO
JCM secretariat
Coordinating Ministry of Economic Affairs
Ministry of Industry
APKI(Indonesian Pulp and Paper Association)

E.2. Summary of comments received and their consideration

Stakeholders	Comments received	Consideration of comments received
Director of Fajar Paper	Japanese stakeholder's involved into this project is appreciated and the enthusiasm for utilizing and further promoting JCM is mentioned.	No Action
Indonesia JCM secretariat	This project is positioned as a first project of paper industry in Indonesia and an important project. Moreover, in order to develop the project horizontally to other paper factories in	No Action

	Indonesia, it is pointed to set up committees involving public and private sectors in the paper industry and to appeal the results of this JCM project.	
the Ministry of Industry	An introduction about the efforts of the paper industry in the Ministry of Industry is given. The energy reduction amount by the project OCC was asked.	No Action
Indonesian pulp and paper Association	The total production capacity and yield of LINE 8 was asked.	No Action

F. References

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Reference lists to support descriptions in the PDD, if any.

Annex

Revision history of PDD

Version	Date	Contents revised
0.1	13/02/2017	Initial draft.