JCM FLAGSHIP MODEL PROJECTS IN BANGLADESH

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BACKGROUND

- Bangladesh and Japan signed MOU for the introduction of the JCM on March 19, 2013.

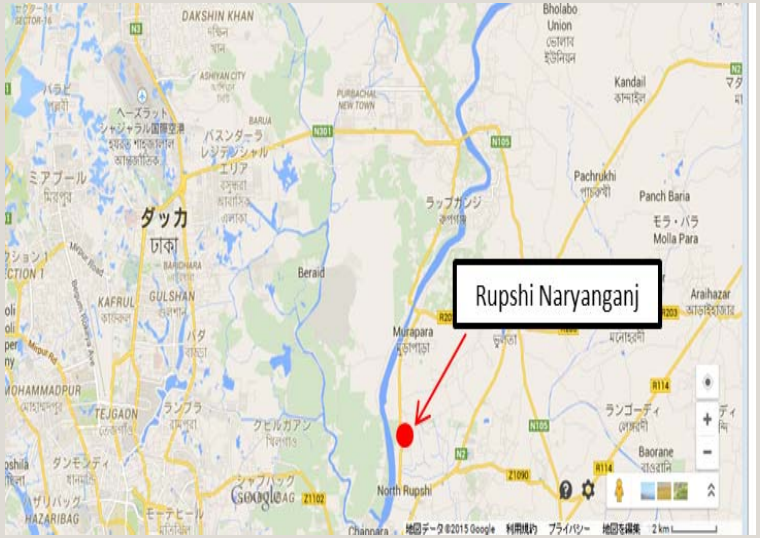
Source: Embassy of Japan in Bangladesh website

JCM Model Projects in Bangladesh

Project name	Fiscal Year	Project Participants	
		Japanese side	Bangladesh side
Energy Saving for Air Conditioning & Facility Cooling by High Efficiency Centrifugal Chiller in Sugar Mill	2014	Ebara Refrigeration Equipment & Systems	City Sugar Industries Ltd
Installation of High Efficiency Loom at Weaving Factory	2015	Toyota Tsusho Corporation	Hamid Fabrics Limited
Introduction of PV-diesel Hybrid System at Fastening Manufacturing Plant	2015	YKK Corporation	YKK Bangladesh Pte Ltd
50MW Solar PV Power Plant Project	2015	Pacific Consultants	HDFC SinPower Ltd. & IFDC Solar Power (BD) Ltd
Installation of High Efficiency Centrifugal Chiller for Air Conditioning System in Clothing Tag Factory	2015	Ebara Refrigeration Equipment & Systems	Next Accessories Ltd.
Energy Saving of Air-Conditioning System by Recovering Waste Heat from Engine in Textile Factory	2016	Ebara Refrigeration Equipment & Systems	Unitex Composite Ltd.

COMPLETED JCM MODEL PROJECTS IN BANGLADESH

1. Establishment of energy efficient Centrifugal Chillers



Location of project site

- Between City Sugar Mills of City Group and Ebara Corporation of Japan/Thailand.
- This project introduces two high-efficiency centrifugal chillers at City Sugar Mills
- Approximately 28.4 kW of energy consumption is reduced comparing with reference chiller resulting 255 tCO_2/year emission reduction

ESTABLISHMENT OF ENERGY EFFICIENT CENTRIFUGAL CHILLERS

Control Room

Replaced Ceiling Type Air Conditioner

Chiller installed by the project

Cooling Tower installed by the project

ESTABLISHMENT OF ENERGY EFFICIENT CENTRIFUGAL CHILLERS

SUMMARY:

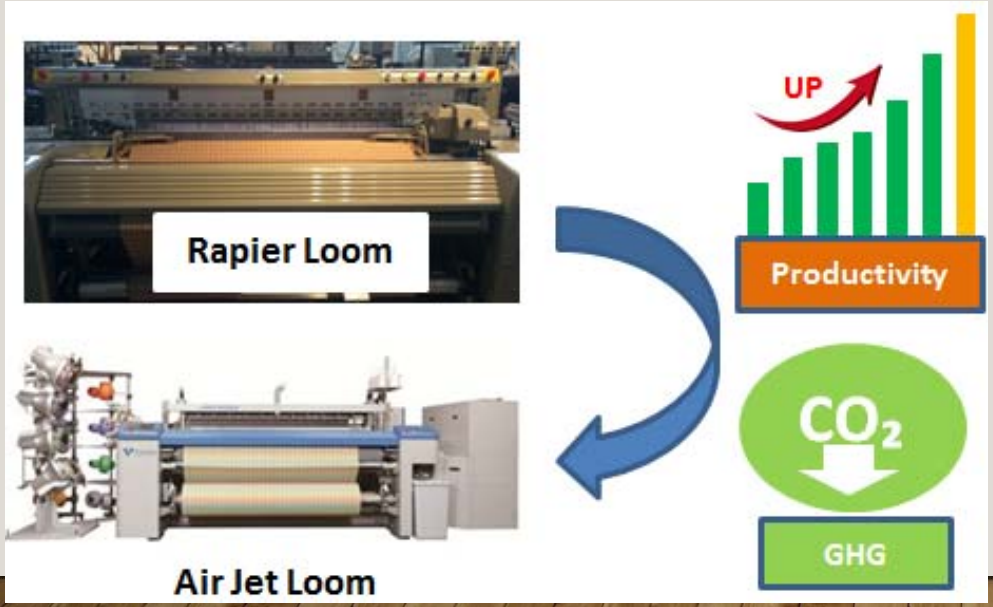
Project category	Energy efficiency improvement
Technology	High-efficiency centrifugal chillers with ECONOMIZER, refrigerant SUB-COOLER and high efficiency compressor
Estimated energy saving	398.1 MWh/year
Project site	City Sugar Industries Ltd, Narayanganj

Work Name	Current Status
Announcement of selection	January 19, 2015
Contract of financing	January 26, 2015
Design&Manufacturing	Completed in April, 2015
Installation	Completed in October, 2015
Commissioning	Completed in December, 2015

- **Methodology has been approved by Joint Committee (JC) on 09 March 2016.**
- **Project Design Document (PDD) has been submitted for JC approval.**

JCM MODEL PROJECT NO 2: INSTALLATION OF HIGH EFFICIENCY LOOM AT WEAVING FACTORY

SUMMARY:



Location of project site

JCM MODEL PROJECT NO 2: INSTALLATION OF HIGH EFFICIENCY LOOM AT WEAVING FACTORY

SUMMARY:

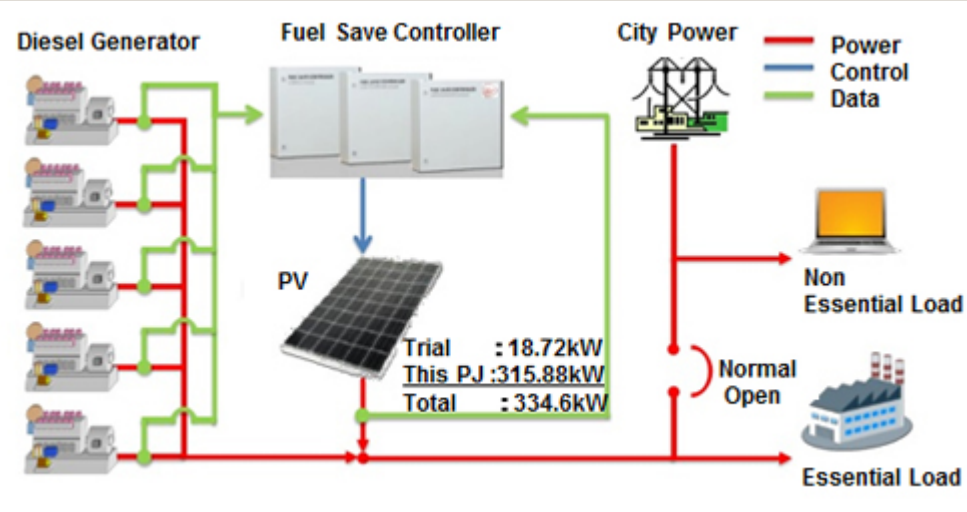
Project category	Energy efficiency improvement
Technology	Energy efficient Air Jet Loom, which will replace rapier looms
Estimated energy saving	2265 MWh/year
Project site	Hamid Fabrics Limited, Dhaka

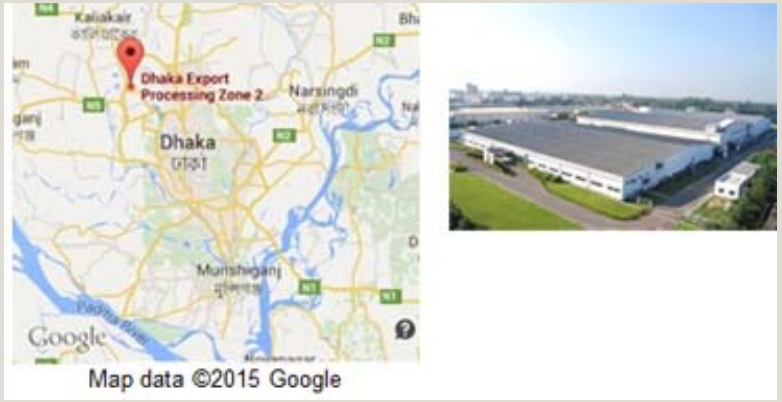
Work Name	Current Status
Announcement of selection	June 30, 2015
Contract of financing	September 24, 2015
Design&Manufacturing	Completed in March, 2016
Installation	Completed in July, 2016
Commissioning	Completed in November, 2016

- Methodology has been submitted for JC approval.

JCM MODEL PROJECT NO 3: INTRODUCTION OF PV-DIESEL HYBRID SYSTEM AT FASTENING MANUFACTURING PLANT

SUMMARY:





Location of project site

JCM MODEL PROJECT NO 3: INTRODUCTION OF PV-DIESEL HYBRID SYSTEM AT FASTENING MANUFACTURING PLANT

SUMMARY:

Project category	Renewable energy
Technology	Hybrid solar-diesel power system
Expected GHG emission reduction	265 tCO2/ year
Project site	YKK Bangladesh Plant, Dhaka

Work Name	Current Status
Announcement of selection	June 30, 2015
Contract of financing	October 1, 2015
Design&Manufacturing	Completed in February, 2016
Installation	Completed in May, 2016
Commissioning	Completed in July, 2016

- Methodology has been submitted for JC approval.

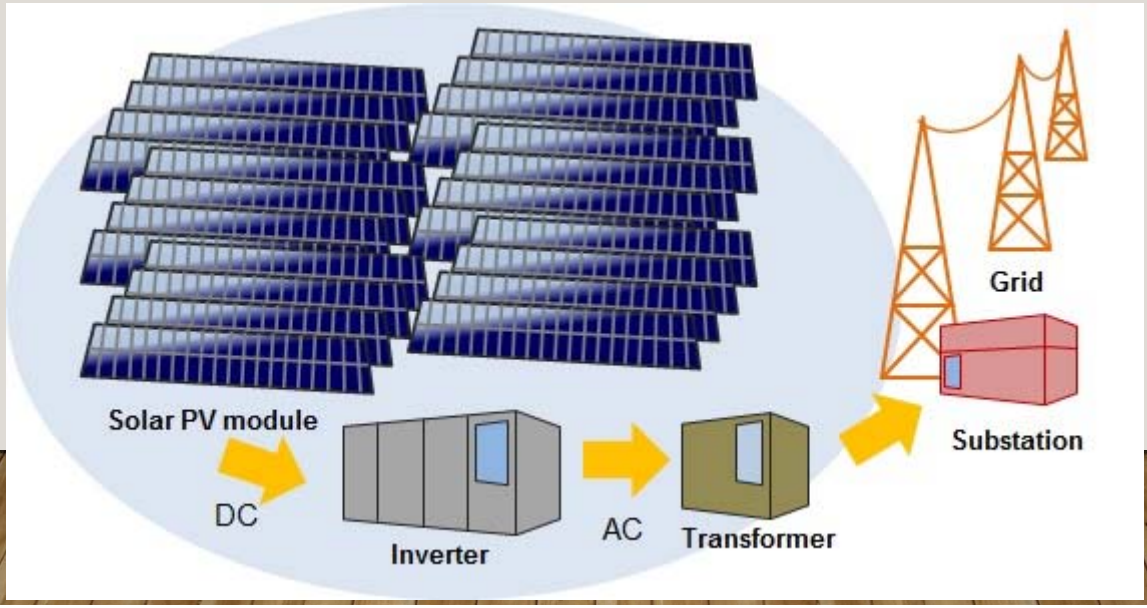
JCM MODEL PROJECT NO 4: 50MW SOLAR PV POWER PLANT PROJECT

SUMMARY:

Project category	Renewable energy
Technology	The latest heterojunction PV modules with high efficiency and superior performance
Expected GHG emission reduction	40,527 tCO2/ year
Project site	Sutiakhali, Mymensingh

The project site is in Sutiakhali, Mymensingh.

Location of project site



Wish list for future JCM Model Projects (Based workshop outputs in FY 2015

	Technologies
1	Waste heat recovery boiler
2	Energy efficient chiller
3	Energy efficient wastewater treatment plants
4	Solar PV Power generation
5	Roof top solar power generation
6	Solar irrigation pump system
7	Cold storage system for food industries
8	Energy efficient water bottling technology
9	Non-fired brick technology
10	Solar Diesel Hybrid system

Thank You