Japanese Ministry of the Environment's Joint Crediting Mechanism (JCM) Project Funding Program "CVS Energy Saving Project in Indonesia"



12-July-2017 Lawson, Inc.



Object

We will promote the spread of energy-saving low carbon technology equipment of Japan.

 For the purpose of reducing CO2 emissions by reducing power consumption, introduction of the latest high efficiency equipment to overseas stores, and demonstration of energy saving effect.

Content of implementation items

 At the international consortium, we aim to acquire credits using the JCM system.
Panasonic's high efficiency invertor air-conditioner, energy saving CO2 chiller and freezer system, and dimming LED lighting are introduced.

Operational situation

We accept adoption of a project equipment subsidiary business by utilizing the JCM system of Ministry of the Environment in FY2010, the "CVS Energy Saving Project in Indonesia" started. (December 2013)

- In March 2015, we completed introduction of energy-saving equipment to 12 mini supermarket "Alfamidi" in Jakarta.
- In June 2016 "Project Registration", in September submitted a monitoring report under the certification of a third-party organization.

1. Project Overview (2/3)



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1. Project Overview (3/3)





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2. Project implementation (1/4)



The project covers a total of **12 grocery stores owned by PT. MIDI UTAMA INDONESIA Tbk** located in Jakarta capital and its surrounding districts.





2. Project implementation (2/4)



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<Challenges>

(1) Accounting of JCM Funding and Asset Registration

Designated Account for Fund Payment: Project focal point (Japanese company)
⇒ Allocation to local counterpart

(2) Training of Installation Technician

 CO2 Refrigeration System: Difference in materials and installation method due to high Pressure(10MPa) ⇒ Training session on installation (invitation to Japan)

(3) Installation Cost

Adjustment of cost covered by local counterpart: Difference in currency value
⇒ Presently based on capital investment amount

(4) Procurement of Target Equipment

 Local procurement unavailable because target equipment is under demonstration test phase ⇒ Export from Japan is necessary

* Expensive cost, difficulty in quality assurance, uncertainties in delivery time

(5) Others

- Adverse effects on equipment due to voltage instability (Wattmeter, VPN router, Modem)
- Trouble of monitoring data collection due to Internet line instability (3imes/month)
- Increase cost by installing a generator against power failure (US\$ 20,000/1 store)

It is necessary to solve various problems in order to continue and spread the JCM business. First of all, we aim to issue credits, which is the objective of this project.

2. Project implementation (4/4)

<Expansion spread>

- LED lighting , Air conditioning -> Expansion spreading is possible
- CO2 refrigerant equipment -> Economic rationality can not be expected now Cost reduction of equipment is an important factor in solution.

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3.GHG emission reductions and MRV(1/3)

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<Process towards JCM Credits Issuance and Activities</p>



We made a monitoring report by 12 store's measuring data from March 2014 to May 2016. And Emission reduction amount totaling 195 t-CO2 has been approved by validity examination of a third party organization. Currently JCM procedure suspends. After instructed, we schedules to submit a application for credit issuance.

	GHG Emissions Calculation for Ap	plied Methodology I	D_AM004 (12 stores total)	X Inverter-type air conditioning system
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Year (Monitoring Period)	Reference emissions during the period p (tCO2/p)	Project emissions during the period p (tCO2/p)	Emissions reductions during the period p (tCO2/p)
2014 (1 March 2014 - 31 December 2014)	41	36	4
2015 (1 January 2015 - 31 December 2015)	290	259	31
2016 (1 January 2016 - 31 May 2016)	164	146	17
Total	495	441	52

GHG Emissions Calculation for Applied Methodology ID_AM005 (12 Store total) **XLED lighting**

Year (Monitoring Period)	Reference emissions during the period p (tCO2/p)	Project emissions during the period p (tCO2/p)	Emissions reductions during the period p (tCO2/p)
2014 (1 March 2014 - 31 December 2014)	15.0	12.4	2
2015 (1 January 2015 - 31 December 2015)	75.9	61.1	14
2016 (1 January 2016 - 31 May 2016)	45.0	36.1	8
Total	136.0	109.6	24

GHG Emissions Calculation for Applied Methodology ID_AM008 (12 stores total) 💥 Separate type CO2 refrigeration system

Year (Monitoring Period)	Reference emissions during the period p (tCO2/p)	Project emissions during the period p (tCO2/p)	Emissions reductions during the period p (tCO2/p)
2014 (1 March 2014 - 31 December 2014)	101.7	88.6	12
2015 (1 January 2015 - 31 December 2015)	525.1	456.5	67
2016 (1 January 2016 - 31 May 2016)	313.4	272.9	40
Total	940.2	818.0	119

GHG Emissions Calculation (3 applied methodologies, 12 stores total)

Year (Monitoring Period)	Reference emissions during the period p (tCO2/p)	Project emissions during the period p (tCO2/p)	Emissions reductions during the period p (tCO2/p)
2014 (1 March 2014 - 31 December 2014)	157.3	137.1	18
2015 (1 January 2015 - 31 December 2015)	891.3	776.0	112
2016 (1 January 2016 - 31 May 2016)	522.5	455.1	65
Total	1,571.1	1,368.2	195

3.GHG emission reductions and MRV(3/3)



Awareness Regarding the MRV activities of the Project

To ensure sustainable monitoring, report and verification (MRV) activities at the stores, capacity building on the understanding of JCM and installed technologies are conducted through trial monitoring, and awareness-raising activities.

<Details>

- (1) Preparing teaching materials on monitoring and organizing seminars.
- (2) Awareness-raising through application of stickers and posters by local counterpart.

 \ll Application of Stickers \gg



Joint Crediting Mechanism (JCM) Model Project (2013) INDONESIA and JAPAN

≪JCM Project Sticker Design≫



≪Application of Posters≫



 \ll Awareness-raising Poster (English) \gg

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