

JCM Project Design Document Form

A. Project description

A.1. Title of the JCM project

Introduction of LED Lighting to UNIQLO Sales Stores

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

This project aims to save electricity consumption in UNIQLO sales stores (clothing stores) through installation of light emitting diode (LED) lamps and consequently to reduce greenhouse gas emissions. The project covers 11 stores in total, each of which is a tenant in different shopping malls mostly located around Jakarta. Conventional high-intensity discharge (HID) lamps are replaced with LED in three existing stores and LED lamps are newly installed in eight stores.

The project LED lamps are manufactured and designed by KOIZUMI Lighting Technology Corp. to be suitable for the use in the UNIQLO sales stores. Brightness, luminous intensity distribution and color are the key elements in designing the LED lamps for the UNIQLO sales stores to illuminate displayed clothes appropriately.

A.3. Location of project, including coordinates

Country	Republic of Indonesia
Region/State/Province etc.:	Store 1: Jakarta Special Capital Region Store 2: Jakarta Special Capital Region Store 3: Jakarta Special Capital Region Store 4: West Java Province Store 5: North Sumatra Province Store 6: Jakarta Special Capital Region Store 7: Special Region of Yogyakarta Store 8: South Sulawesi Province Store 9: Jakarta Special Capital Region Store 10: Bali Province Store 11: West Java Province
City/Town/Community etc:	Store 1: UNIQLO Lotte Shopping Avenue Jl. Prof. DR Satrio Kav 3 -5, Karet Kuningan, South Jakarta Store 2: UNIQLO Mal Taman Anggrek

	<p>Jl. Let. Jend. S. Parman, Kav.21, Slipi, West Jakarta Store 3: UNIQLO Grand Indonesia Jl. MH Thamrin No. 1, Central Jakarta Store 4: UNIQLO 23 Paskal Komplek Paskal Hypersquare, Jl. Pasirkaliki, Andir, Bandung Store 5: UNIQLO Sun Plaza Jalan KH.Zainul Arifin No.7, Madras Hulu, Medan Store 6: UNIQLO Lippo Mall Kemang Jalan Pangeran Antasari No.36, RT.12/RW 5, Bangka, Mampang Prapatan, South Jakarta Store 7: UNIQLO Hartono Mall Jl. Ringroad Utara, Sanggrahan, Kaliwaru Condong Catur, Depok, Sleman Store 8: UNIQLO Trans Studio Mall Makassar Kawasan Terpadu Trans Studio Mall, Jl. HM. Dg. Patompo-Metro Tanjung Bunga, Maccini Sombala, Tamalate, Makassar Store 9: UNIQLO Senayan City Jl. Asia Afrika No.Lot. 19, Gelora, Tanah Abang, Central Jakarta Store 10: UNIQLO Mall Bali Galeria Jl. By Pass Ngurah Rai, Simpang Dewa Ruci, Kuta, Badung Store 11: UNIQLO Paris Van Java Mall Jl. Sukajadi no.131-139, Bandung</p>
Latitude, longitude	<p>Store 1: 6°13'26.2"S 106°49'22.4"E Store 2: 6°10'42.1"S 106°47'32.6"E Store 3: 6°11'46.6"S 106°49'19.8"E Store 4: 6°54'56.6"S 107°35'40.0"E Store 5: 3°34'52.8"N 98°40'16.0"E Store 6: 6°15'42.3"S 106°48'46.0"E Store 7: 7°45'37.0"S 110°23'55.9"E Store 8: 5°09'29.6"S 119°23'41.2"E Store 9: 6°13'37.2"S 106°47'49.9"E Store 10: 8°43'23.9"S 115°11'03.5"E</p>

	Store 11: 6°53'23.6"S 107°35'44.2"E
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A.4. Name of project participants

The Republic of Indonesia	PT. Fast Retailing Indonesia
Japan	FAST RETAILING CO., LTD.

A.5. Duration

Starting date of project operation	25/01/2017
Expected operational lifetime of project	8 years

A.6. Contribution from Japan

The proposed project was partially supported by the Ministry of the Environment, Japan through the Financing Program 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.

As for technology transfer, a Japanese engineer provided local engineers with technical trainings on monitoring equipment and instructed them at the time of actual installation.

B. Application of an approved methodology(ies)

B.1. Selection of methodology(ies)

Selected approved methodology No.	JCM_ID_AM020
Version number	Ver01.0

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	LED lighting is installed in indoor facilities.	All LED lamps are installed inside UNIQLO sales stores, which are the tenant in different shopping malls.
Criterion 2	The installed LED lighting is a downlight or spotlight type LED whose color rendering index stated in	Each LED lamp is either downlight or

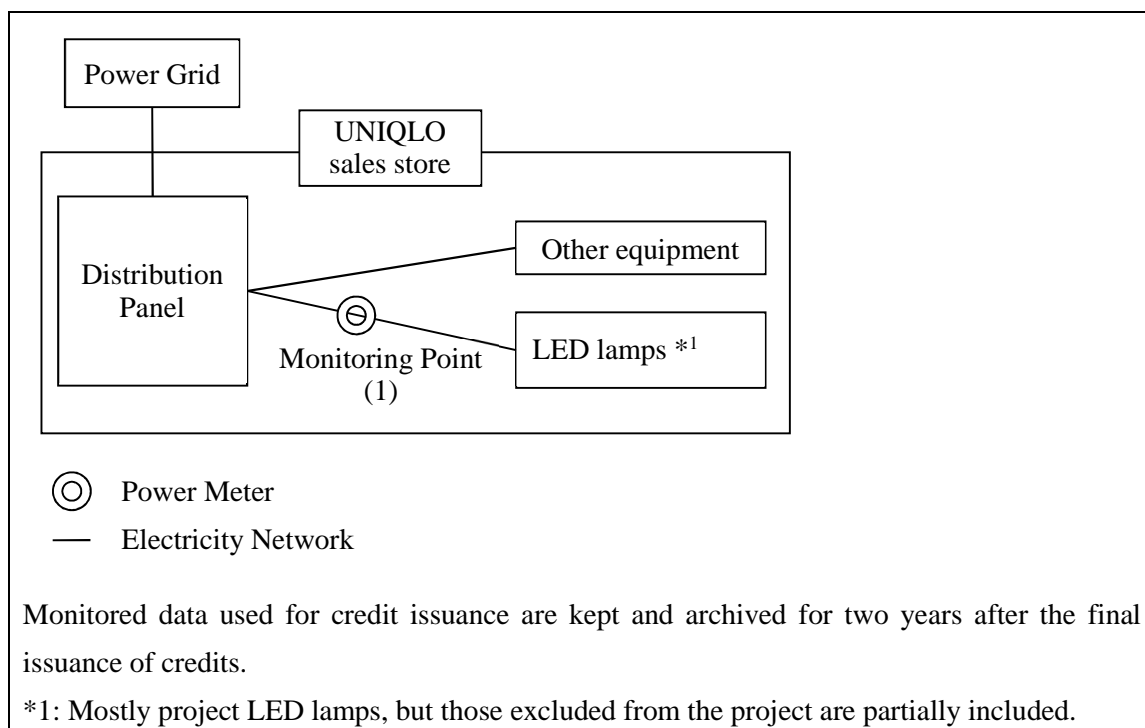
	catalogs or other information prepared by its manufacturer is equal to or higher than 85, and luminous efficiency is equal to or higher than the corresponding threshold value set in the table below.					spotlight type. The color rendering index is 85 for all the LED lamps, and their luminous efficiencies are above the required threshold values (See also supporting documents).	
	Rated power consumption [W]	$0 \leq x < 20$	$20 \leq x < 40$	$40 \leq x < 60$	$60 \leq x < 80$		$x \geq 80$
	Threshold luminous efficiency value [lm/W]	77.2	77.6	73.7	76.3		74.8

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
Power consumption by reference lighting	CO ₂
Project emissions	
Emission sources	GHG type
Power consumption by project LED lighting	CO ₂

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



C.3. Estimated emissions reductions in each year

Year	Estimated Reference emissions (tCO ₂ e)	Estimated Project Emissions (tCO ₂ e)	Estimated Emission Reductions (tCO ₂ e)
2013	-	-	-
2014	-	-	-
2015	-	-	-
2016	-	-	-
2017	2,363.4	1,814.9	548
2018	2,529.8	1,942.6	587
2019	2,529.8	1,942.6	587
2020	2,529.8	1,942.6	587
2021	2,529.8	1,942.6	587
2022	2,529.8	1,942.6	587
2023	2,529.8	1,942.6	587
2024	2,529.8	1,942.6	587
2025	166.3	127.7	38
2026	-	-	-
2027	-	-	-
2028	-	-	-

2029	-	-	-
2030	-	-	-
Total (tCO ₂ e)			4,695

Note:

The estimated emission reductions in each year are rounded down after the decimal point.

D. Environmental impact assessment

Legal requirement of environmental impact assessment for the proposed project	No
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E. Local stakeholder consultation

E.1. Solicitation of comments from local stakeholders

In order to cover a diverse group of stakeholders, on 30 August 2018, a local stakeholder consultation has been conducted by the project participants with the JCM secretariat of the Indonesian side, Green Building Council Indonesia, Dinas Lingkungan Hidup Provinsi DKI Jakarta.

The list of attendees to the meeting has been consulted to the JCM secretariat of the Indonesian side, and the local stakeholders to be invited have been fixed. The project participants sent invitation letters to those stakeholders to notify them of convening the local stakeholder consultation meeting. The schedule and participants of the meeting are provided below.

Date: 30 August 2018

Venue: Office of PT. Fast Retailing Indonesia

Time: 10:00-11:05

Agenda:

1. Opening remarks
2. Introduction about Joint Crediting Mechanism (JCM)
3. Introduction about PT. Fast Retailing Indonesia
4. Project overview, and introduced technology and facility
5. Q&A and comments to receive from the participants
6. Closing

Participants:

[Local stakeholders]		
No.	Organization	Position
1	Indonesia JCM secretariat	Head of JCM secretariat
2		Staff
3		Staff
4		Staff
5	Green Building Council Indonesia	CEO
6		International & Government Relation Officer
7	Dinas Lingkungan Hidup Provinsi DKI Jakarta	Staff
8		Staff
[Project participants]		
No.	Organization	Position
1	FAST RETAILING CO., LTD.	Facility Manager
2	PT. Fast Retailing Indonesia	Co-Coo
3		Director
4		Head of Store Development
5		Project & Construction Manager
6		Project & Construction Manager
7		Store Design Manager
8		Store Manager at Uniqlo Mall Taman Anggrek
<p>A summary of the received comments and consideration of those comments are provided in Section E.2.</p>		

E.2. Summary of comments received and their consideration

Stakeholders	Comments received	Consideration of comments received
Indonesia JCM secretariat	How much is lux of LED lighting?	The lux value of a certain model of project LED lamp is 1,030 lx, when measured at the height of person's eye given that the lamp is equipped on ceiling of 4,000 mm height. No further action is needed.
Green Building Council Indonesia	There are SNIs for LED lighting equipped in general stores. Set values in the SNIs as a baseline are 20 W/m ² or less, and 500 lx or more. Since the JCM needs to be better than the	In the said SNI (SNI 03-6197-2000), there is no standard related to electricity consumption per square meter that is particularly set for "clothing" stores.

	baseline, reference needs to be better than these values. Please check the relevant SNIs.	Regarding lux value, as the project participant responded above, project LED lamps seem to have a value of far more than 500 lx. No further action is needed.
Green Building Council Indonesia	LED lighting does not contain mercury. There is no concern that mercury is leaking out of the lamp. The proposed project is environment-friendly in terms of not only emission reductions, but also no mercury contamination.	Positive opinion was received. No further action is needed.
Indonesia JCM secretariat	Do you plan to invite other tenants in the malls to show the project LED lighting? This will contribute to dissemination of project technology to other sales stores in the mall.	Other mall tenants are free to enter the UNIQLO store so that they can see the LED lighting at any time. The project participants also inform the mall management “UNIQLO's stores have the latest LEDs, so please tell the other tenants that they could come and see the LEDs any day, any time”. No further action is needed.
Indonesia JCM secretariat	Could you provide information on project site; the name of stores, their locations and installation schedule?	The project participants sent a progress report including such information to the JCM secretariat of the Indonesian side. No further action is needed.
Green Building Council Indonesia	There are usually two kinds of lamps in stores: lamps on ceilings and wall/showcases. Are all lamps replaced with LED? Is power line separate for these two types of lamps?	In case of the replacement, the project participants change only those on ceilings (both general light and spotlight). The power line for those lamps is basically split away from others, so that the power consumption

		can be measured independently. No further action is needed.
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F. References

N/A

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

Annex

N/A

Revision history of PDD

Version	Date	Contents revised
01.0	26/11/2020	First edition