

JCM Project Design Document Form

A. Project description

A.1. Title of the JCM project

LED lighting introduction business for the sales store

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

This project is introducing high-efficiency LED lighting in UNIQLO's existing 13 stores and 7 new stores which located mainly Bangkok area in Thailand, it is expected to reduce greenhouse gas (GHG) emissions without any change of shop lighting operating conditions. In apparel shop, brightness and light distribution and appropriate illuminance on fixtures and walls are important in store lighting design, this project is initiating as a top runner in the apparel industry by proactively introducing LED lights. Also, through the implementation of the project, the project can contribute to reduce emissions of harmful substances such as mercury and lead contained in conventional fluorescent lights.

A.3. Location of project, including coordinates

Country	Thailand	
Region/State/Province etc.:		
City/Town/Community etc:	Bangkok, and surrounded area	
Latitude, longitude	Existing shops [Longitude : Latitude]	New shops [Longitude : Latitude]
	1) Siam Paragon [13.74641 : 100.53468]	1) Terminal 21 Pattaya [12.95137 : 100.88845]
	2) CentralPlaza Salaya [13.79072 : 100.27655]	2) CentralPlaza Nakhon Ratchasima [14.99693 : 102.11628]
	3) CentralPlaza Chaengwattana [13.90485 : 100.52831]	3) Patanakarn
	4) CentralFestival Pattaya Beach [12.94243 : 100.88496]	4) CentralPlaza Mahachai [13.57269 : 100.28884]
	5) Fashion Island [13.82612 : 100.67818]	5) Pisanulok
	6) CentralPlaza Rama 2 [13.66420 : 100.43928]	6) Samyan Mitrtown [13.73552 : 100.52840]
	7) CentralPlaza Chiangmai Airport [18.76982 : 98.97455]	7) Roadside Lasalle [13.65766 : 100.62322]
	8) Tesco Lotus Phuket [7.90477 : 98.36932]	
	9) CentralFestival	

	Chiangmai [7.89261 : 98.36667] 10) CentralFestival Hatyai [7.21575 : 100.41741] 11) Central Plaza Bangna [13.67072 : 100.63467] 12) The Mall Bangkai [13.71394 : 100.40727] 13) The Mall Bangkok [13.76803 : 100.64282]	
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A.4. Name of project participants

The Kingdom of Thailand	UNIQLO (THAILAND) CO.,LTD.
Japan	FAST RETAILING CO., LTD.

A.5. Duration

Starting date of project operation	January, 2019
Expected operational lifetime of project	8 years

A.6. Contribution from Japan

The 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 project in order to acquire JCM credits.

B. Application of an approved methodology(ies)

B.1. Selection of methodology(ies)

Selected approved methodology No.	TH_AM0016
Version number	Ver. 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	LED lighting is installed in indoor facilities.	This project installed LED lightings in indoor UNIQLO sales stores.
Criterion 2	The installed LED lighting is a downlight or spotlight type LED whose colour rendering index is equal to or higher than 85, and	This project installed various downlight or spotlight type of LED lights in 20 shops. All LED lights have enough rendering index is equal to or higher than

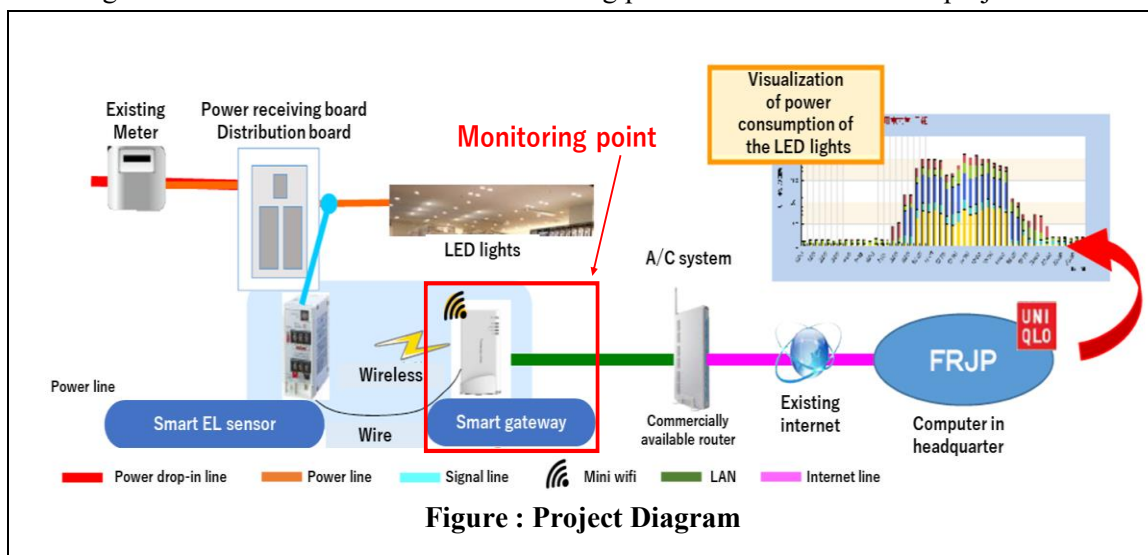
	luminous efficiency is equal to or higher than the corresponding threshold value set in the table below.		85 and luminous efficiency is equal to or higher than reference value (see left table).
	Rated power consumption [W]	$0 \leq x < 40$	$x \geq 40$
	Luminous efficiency of reference lighting [lm/W]	73.6	78.0

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 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)
2016	677.1	535.4	141
2017	1438.8	1137.6	301
2018	1692.7	1338.4	354
2019	1692.7	1338.4	354
2020	1692.7	1338.4	354
2021	1692.7	1338.4	354
2022	1692.7	1338.4	354
2023	1692.7	1338.4	354
2024	1015.6	803.0	212
2025	253.9	200.8	53
2026			
2027			
2028			
2029			
2030			
Total (tCO ₂ e)			2,831

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

- Date and Time: 8th September 2023, 9:30-10:30 (BKK time)
- Venue: Meeting room of Uniqlo Thailand office Co., Ltd. (Samyan Mitrtown office, 18th floor)
- Language: Thai, English
- Participants: 8 people (Thailand Greenhouse Gas Management Organization (TGO), Uniqlo Thailand Co., Ltd., Fast retailing Co., Ltd., Nippon Koei Co., Ltd.)
- Agenda:

- 1) Opening remarks
- 2) Overview of the project
- 3) Explanation of technology introduced at the UNIQLO (THAILAND) CO., LTD.
- 4) Questions and answers
- 5) Closing remarks

E.2. Summary of comments received and their consideration

Stakeholders	Comments received	Consideration of comments received
TGO	Request for LED lighting specification / lifetime and stores detail (names, the number of stores, number of lightings in each stores, etc.)	UNIQLO shared the specification sheet after LSC. This comment was closed.
Uniqlo Thailand	Through the JCM model project, electricity consumption and emissions of harmful substances has been reduced. Also, with installation of LED lighting system, shop condition could improve in terms of brightness and light distribution and appropriate illuminance on fixtures and walls.	Positive opinion was received. No action is needed.
Uniqlo Thailand	Through this project Uniqlo Thailand intend to expand JCM projects. Is it possible to apply for another JCM projects in Thailand?	Since the methodology has already developed and the application documents have already prepared once, it will be easier to apply than last time. Also, positive opinion was received. No action is needed.

F. References

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

Annex

Revision history of PDD		
Version	Date	Contents revised