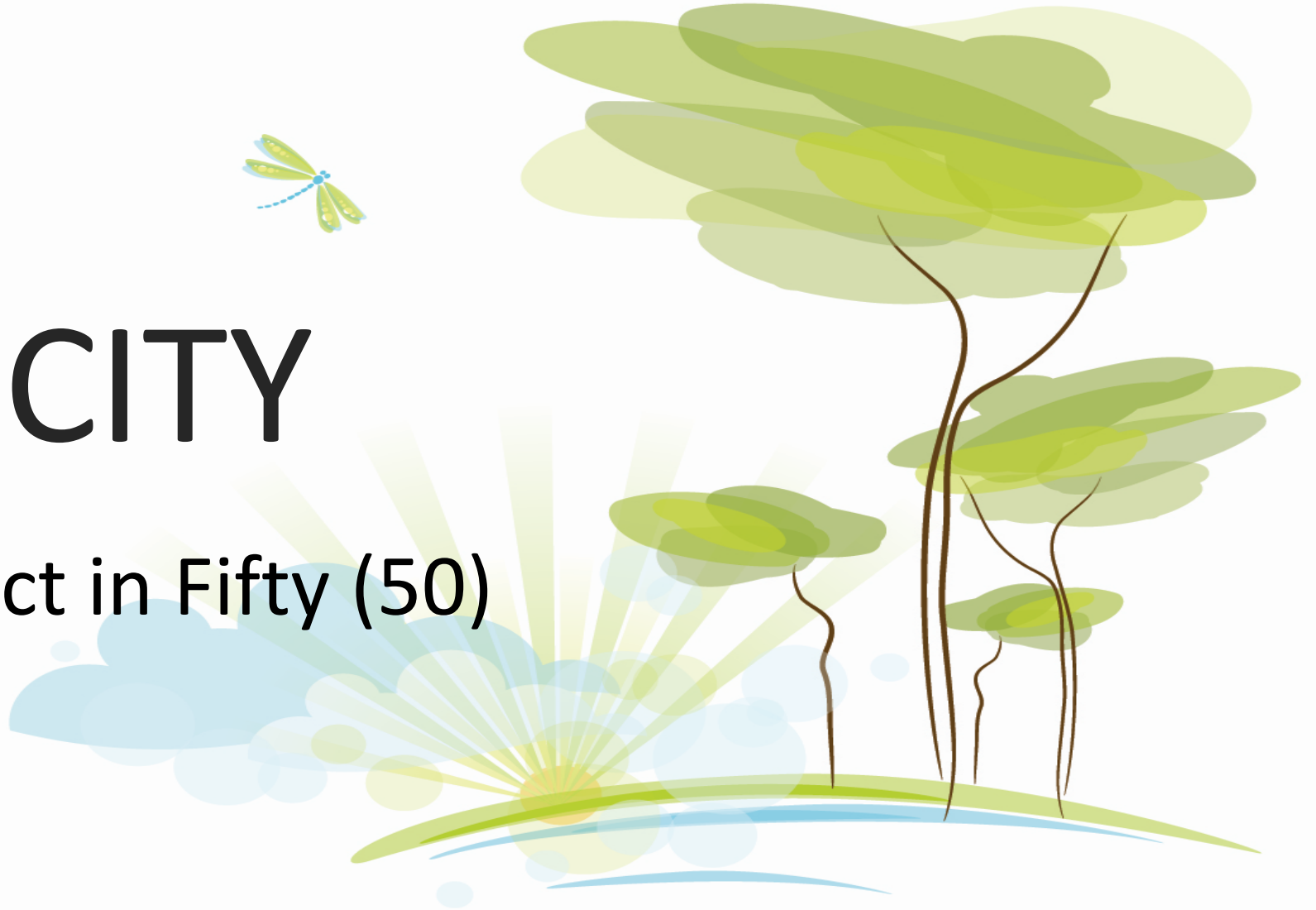




QUEZON CITY

Solar Energy Project in Fifty (50)
Public Schools



Quezon City as a member of C40 Cities



Adaptation Implementation

Connecting Delta Cities

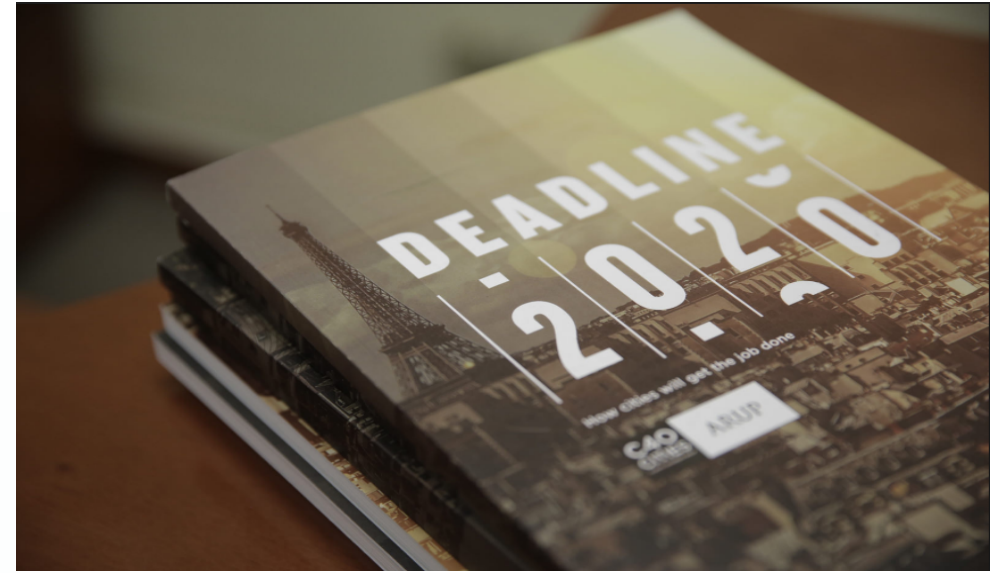
Cool Cities

Urban Flooding



Air Quality

Air Quality



Energy & Buildings

Clean Construction Forum

Clean Energy

Municipal Building Efficiency

New Building Efficiency

Private Building Efficiency



Food, Waste & Water

Food Systems

Sustainable Waste Systems

Waste to Resources



Transportation & Urban Planning

Land Use Planning

Mass Transit

Mobility Management

Walking & Cycling

Zero Emission Vehicles

C40 CITIES FINANCE FACILITY (CFF)

Quezon City Solar Energy Project in Fifty (50) Public Schools



Stage 1 Application 2018 - Energy & Transport Application Summary

PROJECT NAME

Solarization of Selected Public Schools in Quezon City

TYPE

Stage 1 Application 2018 - Energy & Transport

NAME

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JOB TITLE

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1. PROJECT DESCRIPTION AND CONTEXT

In line with the vision of becoming a low carbon and sustainable City, the City Government continues to pursue its goal to promote the development, utilization, and commercialization of renewable energy such as Solar Energy.

In line with the said initiative, the City will implement the solarization of public schools to reduce electricity consumption which will not only contribute to financial savings but also in the reduction of Greenhouse Gas Emissions. Also, the project will be a platform to raise environmental awareness of Quezon City constituents especially the youth.

The project involves the installation of a Grid-Tied Photo Voltaic (PV) system in Fifty (50) selected public schools.

Quezon City is one of the 9 cities that will receive technical support from the CFF. The CFF assistance will include technical feasibility studies for rooftop solar projects and development of public private partnership models.



Quezon City and C40 CFF's Journey

- Two (2) Due Diligence were conducted in 2018 to assess the needs of the City
- The C40 CFF Team was able to hold a courtesy visit with the City Mayor and Vice Mayor to discuss the new initiative
- Assessment of the Pilot Schools as well as other possible schools for the project were also conducted
- Work Plan of the project was drafted by the members of the Technical Working Group (TWG) of the Solar Energy Project of Quezon City and the C40 CFF Team
- The C40 CFF Team hired a Senior Adviser for the project (Mr. Ferdinand Larona)



Institutional Arrangement

- **August 23, 2019** – The Honorable Mayor Ma. Josefina G. Belmonte issued an Executive Order “Creating the Quezon City C40 Cities Finance Facility Technical Working Group.” The members are the Office of the City Administrator, Environmental Protection and Waste Management Department, Engineering Department, Department of the Building Official, Division of City Schools and City General Services Department.
- **September 4, 2019** – 1st TWG Meeting where EO No. 22 was discussed, the project’s Work Plan and Selection Criteria for schools
- **September 9, 2019** – Questionnaires were distributed to all public schools in Quezon City. Each member Department was assigned a district to monitor and collate questionnaires which were then converted to equivalent points through the criteria matrix.
- **October 30, 2019** – 2nd TWG meeting was convened wherein the top 8 schools per district were presented and the next steps for validation were discussed.
- **November 11 to 22, 2019** – TWG validated the identified Top 8 schools per district
- **Executive Order No. 54, S-2019** was issued, reconstituting the Quezon City Environment Policy Management Council
 - **Technical Working Group for C40 CFF** was placed under the supervision of the QC EPMC, likewise the said TWG retains its composition, to effectuate the efficient delivery of their respective functions, duties and responsibilities.

School Selection Process

GUIDELINES/CRITERIA FOR SELECTION OF SCHOOLS

Category 1: Spatial

- Accessibility
- Building height/roof elevation
- Fire wall/Boundary walls
- Surrounding trees and vegetation
- Potential roof obstructions
- Lot area
- Available vacant space
- Location/zoning
- Potential obstruction from future real estate/building construction

Category 2: Socio-Economic

- Present Student population
- Projected student population
- Number of teaching personnel
- Number of management/admin personnel
- Teacher-student ratio

School Validation Process

GUIDELINES/CRITERIA FOR THE SITE VALIDATION OF SCHOOLS

Objective: To validate the results of the evaluation of the school selection for solar PV installation.

Methodology: Rapid appraisal using a combination of the following techniques

- Visual Inspection
- Key-informant interviews (interview school personnel knowledgeable about the facilities)
- Photo documentations
- Collection of additional data/documents if available e.g. electric bills, electrical plans, as-built plans

Other Task:

- Identify the type of electric meter

Activities in 2020

- Virtual Basic Training on Renewable Energy
 - Series of online workshops aimed to help the TWG expand their knowledge on renewable energy, particularly on solar PV technology
- Mentorship Program
 - Hands-on capacity building conducted by C40 CFF experts to further enhance technical capabilities on the processes and procedures on data gathering, site inspection, system design, and financial modeling for possible expansion of the solar PV project specifically on other city-owned facilities, such as the city-owned hospitals.

Current Status

- CFF provided a one (1) year PVsyst Software license used for developing solar PV project which was turned-over to the City Architect Department
- In February 2021, the TWG members were invited to one-on-one impact assessment interviews as part of the Monitoring and Evaluation (M&E) procedure of the project
- The necessary PPP documents are being reviewed for finalization and project implementation
- As the C40 CFF secured additional funding, the technical assistance for Quezon City was extended starting April 1, 2021
- Lastly, the CFF Project's Turn-Over has been tentatively set on June 2021

A stylized illustration on the left side of the slide. It features a thick, brown, curved line representing a tree trunk. To the left of the trunk, there are several green, rounded shapes representing leaves. Below the leaves, there is a sun-like graphic with yellow and orange rays emanating from a central point. The background of the illustration includes a pattern of small, light gray dots. The entire illustration is set against a white background.

Thank You