Financing Programme to Demonstrate Decarbonization Technology for Realizing Co-Innovation Partner Country: Thailand

Demonstration project of the stylish and high-efficiency BIPV system to the high-rise building in Thailand. Representative participant: Kaneka Corporation

Outline of renovation and demonstration

We install the building-integrated PV(BIPV) especially developed for installation to a building facade in Thailand and in Vietnam. BIPV system will be installed on the façade in a similar manner that a normal glass is installed in the region, which leads to the minimization of installation cost.

We also demonstrate the exterior aesthetic of BIPV is equal to the normal architectural glass, and also demonstrate that the stylish and high-efficiency singling cell technology which is utilized for BIPV contributes to more output energy in winter period at low latitude region and it is effective technology for CO2 emission control.

Major verification points are as follows:

- (1) Conformity to the local processing technology of bldg. glass in Thailand and in Vietnam.
- (2) Conformity to the local construction method in Thailand and in Vietnam ,and the cost reduction on production
- (3) Demonstration of the optimized BIPV structure for façade installation in low-latitude regions.



Outline of partner country / region

Chonburi, Thailand



Hanoi, Vietnam

Hano

Thailand and Vietnam have a plenty of solar irradiation, and the commercial electricity rate in Thailand is rather higher in Southeast Asia. Commercial high-rise bldgs. are increasing, on the other hand, the installation space for PV on the rooftop becomes limited due to the diversification of bldg. design ,and so BIPV on the façade is expected to spread.

© OpenStreetMap contributors. Tiles courtesy of Andy Allan.

Prospects of commercialization and diffusion in partner country / region

Commercialization plan

STEP1: BIPV production in Thailand. The verification and the examination of countermeasure of the installation to the local commercial bldg. and factory. (year2022)

STEP2: Demonstrative installation of BIPV to the local commercial bldg. and factory. (2023)

STEP3 : Marketing and sales promotion of BIPV to the Southeast Asian countries (2025)

<u>Spread plan</u>

- Set up the business scheme to supply BIPV suitable to the local bldg. code and the environment with the competitive price through this project.

- Spread to neighboring countries where potential demand are high, and the bldg. demand is increasing.